

HOUSE OF REPRESENTATIVES—Monday, January 24, 1972

The House met at 12 o'clock noon.

Bishop Andrei, Ukrainian Orthodox Church of America, Jamaica, Long Island, N.Y., offered the following prayer:

Almighty and Heavenly Father, as we assemble here today to face the problems and responsibilities of our Nation, we lift up our hearts to You in gratitude for the manifold blessings which You have bestowed upon our Nation and all its people.

Bless, O Lord, our courageous President and his coworkers. Bless the Members of both Houses of Congress and grant them of Thy divine illumination that they may lead our Nation through the bewildering and challenging days ahead. Above all, direct our Government leaders to discern the road to an honorable peace. Enlighten and strengthen the minds and hearts of all—adults and youth—who in their concern to correct the imperfections of our society, are victimized into actions to determine the order, the beauty, and the richness of our blessed land. Save us from discord and violence. Endow us with the spirit of cooperation and dedication to the principles of our Nation.

Grant, O Lord, that the United States of America may ever continue as the example and fortress of hope for enslaved people and nations everywhere, and especially to the 45 million Ukrainians who 54 years ago proclaimed their independence, and are today enslaved with other millions of people, by godless totalitarianism. This we ask in the name of the Father, Son, and Holy Spirit. Amen.

THE JOURNAL

The SPEAKER. The Chair has examined the Journal of the last day's proceedings and announces to the House his approval thereof.

Without objection, the Journal stands approved.

There was no objection.

MESSAGE FROM THE PRESIDENT

A message in writing from the President of the United States was communicated to the House by Mr. Leonard, one of his secretaries.

BISHOP ANDREI KUSCHAK

(Mr. LENT asked and was given permission to address the House for 1 minute and to revise and extend his remarks and include extraneous matter.)

Mr. LENT. Mr. Speaker, it was my distinct honor and pleasure to have as my guest today Bishop Andrei Kuschak, whose eloquent opening prayer we just heard.

Bishop Andrei's distinguished theological career began in 1926 upon his graduation from theological school in Lviv, Poland. A native of the Ukraine, Bishop Andrei came to the United States and in 1932 was ordained by the Ecumenical Patriarch of the Orthodox Church.

In 1967 Bishop Andrei was consecrated

by Archbishop Yacovos and Bishops Silas and Polosides of the Greek Orthodox Church of the Western Hemisphere at the Greek Cathedral of New York City.

Mr. Speaker, it was a true privilege to have such a distinguished theologian with us today and I know my colleagues in the House appreciated, as I did his visit with us.

PRESIDENT'S STATE OF THE UNION MESSAGE

(Mr. GIBBONS asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. GIBBONS. Mr. Speaker, I am not being partisan, and I want to make it perfectly clear to begin with that I am not, because the last three Presidents have treated us all the same since I have been here, but I wish to note that we have invited the President of the United States to make a state of the Union message to us. Every member of the press has a copy of his message, and they read it, including the short and the long version, before the President ever delivers the message to us, and then we get the version that is delivered to us here orally, and that goes whether it is a short or a long version or whether we heard the version all together as it was delivered. We have to respond to it immediately.

This is not a very fair or sound way to do business. I hope that the President in the future and this Congress will lay down some kind of ground rules to see that we get the same kind of message as he gives the press and the same sort of advance notice.

Today we have been inundated with a couple of thousand pages of budget that just got to my office about an hour ago. I guess most Members were treated about the same as I was, but I know my own local press was calling me about daylight wanting to know about all of the goodies in their own district, and I have had some of the press here calling me about it. But I have not had the budget presented to me till now, although the press has had the budget for about 24 to 48 hours.

I hope in the future we can lay down some kind of ground rules and at least get treated as well as the press. I hope in the future when we invite the President down here we get a copy of his remarks, too.

FEDERAL ELECTION CAMPAIGN ACT OF 1971

(Mr. PETTIS asked and was given permission to address the House for 1 minute.)

Mr. PETTIS. Mr. Speaker, I was unable to be present for the vote on the Federal Election Campaign Act of 1971 due to the fact that I was on a congressional mission to Zambia with the purpose of improving our trade relations with developing African nations.

I was gratified to see that my colleagues passed this major election reform

measure by such an overwhelming vote. Had I been present I would have voted "aye."

The American people were demanding that an end be put to the abuses of campaign financing. It is well that the rules of disclosure have been strengthened and that limits have been placed on the amounts that candidates can personally contribute and on the amounts that can be expended for media purposes. While this measure will not solve all of the problems regarding campaign finance, it is a significant step forward.

MAN'S INHUMANITY TO MAN—HOW LONG?

(Mr. SCHERLE asked and was given permission to address the House for 1 minute, to revise and extend his remarks and to include extraneous matter.)

Mr. SCHERLE. Mr. Speaker, since January 26, 1970, I have inserted the same statement in the CONGRESSIONAL RECORD every day. The purpose of the statement, entitled "Man's Inhumanity to Man—How Long?" is to furnish a constant reminder of the plight of American prisoners of war, who are ruthlessly being mistreated by Communist North Vietnam. Concern for these Americans has been my highest priority, and I will continue to publish this statement in the RECORD until they are all released.

The gentlewoman from New York (Mrs. ABZUG) has also begun to place an article in the RECORD entitled "Man's Inhumanity to Man—How Long?" She clearly indicates in that statement where her concern lies. I ask unanimous consent that my article and hers be printed in the RECORD in succession, one immediately following the other.

The SPEAKER. Is there objection to the request of the gentleman from Iowa? There was no objection.

(The articles referred to follow:)

MAN'S INHUMANITY TO MAN—HOW LONG?
(By Hon. WILLIAM J. SCHERLE, of Iowa in the House of Representatives, Thursday, January 20, 1972)

Mr. SCHERLE. Mr. Speaker, a child asks "Where is daddy?" A mother asks: "How is my son?" A wife asks: "Is my husband alive or dead?"

Communist North Vietnam is sadistically practicing spiritual and mental genocide on over 1,600 American prisoners of war and their families.

How long?

MAN'S INHUMANITY TO MAN—HOW LONG?
(By Hon. BELLA S. ABZUG, of New York in the House of Representatives, Thursday, January 20, 1972)

Mrs. ABZUG. Mr. Speaker, a child asks: "Where is daddy?" A mother asks: "How is my son?" A wife asks: "Is my husband alive or dead?"

The United States of America is sadistically practicing spiritual, mental, and physical genocide on over 21 million North Vietnamese.

We must stop the bombing immediately and set a date for the end of the brutal and immoral war in Indochina. Only then can we expect to see American prisoners of war returned to their families.

COMMUNICATION FROM THE
CLERK OF THE HOUSE

The SPEAKER laid before the House the following communication from the Clerk of the House of Representatives:

WASHINGTON, D.C.,
January 21, 1972.

The Honorable the SPEAKER,
House of Representatives.

DEAR MR. SPEAKER: I have the honor to transmit herewith a sealed envelope from the White House, received in the Clerk's Office at 12:45 p.m. on Friday, January 21, 1972, and said to contain a message from the President concerning the dock dispute with proposed legislation attached.

With kind regards, I am,
Sincerely,

W. PAT JENNINGS,
Clerk, House of Representatives.
By W. RAYMOND COLLEY,

THE DOCK DISPUTE ON THE WEST
COAST—MESSAGE FROM THE
PRESIDENT OF THE UNITED
STATES (H. DOC. NO. 92-235)

The SPEAKER laid before the House the following message from the President of the United States, which was read and, together with the accompanying papers; referred to the Committee on Education and Labor and ordered to be printed:

To the Congress of the United States:

The Nation is faced today with yet another transportation strike which is intolerable in its effect upon millions of Americans, and I am determined that we shall end it at once.

The dock dispute on the West Coast has been festering for over a year, but because a few have been insensitive to the harm they are inflicting upon the many who are not a party to it, no reasonable settlement has been reached. Now this work stoppage, renewed after an injunction under the Taft-Hartley Act has expired, again threatens the Nation's health and safety. Those of us in public office must act swiftly and responsibly to avert its damaging consequences.

Because all other Government remedies have been exhausted, I am proposing to the Congress today special legislation to set up immediately a three-member arbitration board. This board, to be appointed by the Secretary of Labor, would hear and settle all issues in this dispute. No strike or lockout would be permitted from the day this legislation is enacted until the day that the arbitration board makes its determinations. The board's determinations would be made within 40 days and would be binding upon the parties for a definite period of time—at least 18 months.

Let there be no mistake about the urgency of this legislation. This is a vital matter to the people of this country, and the Nation can afford no delay. I earnestly implore the Congress to have this resolution on my desk by the end of next week.

This is an unusually pressing request for the opening days of a new session of the Congress, but let there also be no mistake about the dimensions of destruction which this strike is wreaking upon its victims:

—Before I invoked the Taft-Hartley injunction in an earlier attempt to settle this dispute, thousands of farmers reaped a harvest of despair as their export crops were blocked by closed ports and could not reach waiting customers overseas. Hundreds of millions of dollars were lost. Because the strike has now resumed, these farmers are again victimized.

—There is an increasing danger that some of these trade losses will become permanent, as foreign purchasers come to believe that our farmers and businessmen cannot provide dependable deliveries. Japan, a billion-dollar market for agricultural imports, has already asked other suppliers to step up production so that it can lessen its dependence on American exports.

—Layoffs, reduced operations, and even business failures also hang over the heads of many other Americans who engage directly or indirectly in exports. Some areas are especially vulnerable, such as the State of Hawaii, which has been hit by shortages of vital supplies, mounting food costs and unemployment rates unmatched for half a generation. Also hardpressed are California, Oregon and Washington.

I cannot emphasize too strongly that all of these people—and, indeed, our national economy—have been made hostage to the interests of those few who persist in prolonging this dispute. These men and women who are hurt so unfairly cannot accept the fact that a dispute in which they play no part can destroy them—nor can you and I. There is no justification for waiting any longer.

It is with extreme reluctance that I propose this legislation, for as I have stressed to the Congress before, I firmly believe that governmental intervention in the collective bargaining process should be as limited as possible. Compulsory arbitration is not generally a satisfactory method of resolving labor disputes. Under the present, deplorable circumstances, however, there is no remaining alternative.

As this resolution is considered, there is one very tough question before us to which reasonable Americans deserve an answer: Why have we once again reached the flash point?

Let there be no mistake about the facts. For two long years, the Congress has had before it comprehensive proposals which I submitted and have repeatedly urged that it pass for the resolution of emergency transportation disputes. This legislation still languishes unenacted.

These proposals, which should best be called the "Crippling Strikes Prevention Act" in the future, would have avoided the present crisis, and if enacted will avert what will otherwise be the inevitability of similar crises in the future. They would encourage the parties to bargain more responsibly, and in the event that no settlement is reached, would establish a workable mechanism for resolving the disputes without Congressional action.

Our present legislative tools are plainly inadequate. Four times since I called for

these comprehensive measures, it has been necessary for the Congress to enact special legislation to deal with disputes in the troubled transportation industry.

The present dock dispute is perhaps the best illustration of how futile Government actions can be under present law. Bargaining between the parties began in November 1970. After six months of negotiations, the parties gave up their attempt to reach early agreement and suspended their talks until the contract deadline approached. On July 1, 1971, the longshoremen went out on strike, creating a shipping paralysis on the West Coast which reverberated throughout our economy.

The resources of the Federal Government, including exhaustive mediation efforts by the Director of the Federal Mediation and Conciliation Service, proved to be of no avail in resolving the dispute. With grave concern, I watched the crisis broaden and deepen, and I personally met with the parties in an attempt to find some way to end this bitter impasse.

By October 1971, it became evident that collective bargaining had failed in this dispute and that action had to be taken to protect the national health and safety. Thus on October 4, I invoked the national emergency provisions of the Taft-Hartley Act which resulted in an 80-day cooling-off period.

Unfortunately, the lengthy negotiations during this period and thereafter did not result in the hoped-for settlement.

The history of this dispute and the bargaining posture of the parties provide no hope that a further extension of time would be useful, or that it would bring the parties any closer to a resolution of this matter. They compel me to submit this special legislation to the Congress and to appeal once more for legislative action that will enable us to deal with future emergency transportation disputes without the necessity of this sort of *ad hoc* legislation that can never undo the damage already done.

I proposed new, comprehensive legislation in February 1970, and there was no Congressional action that year. I re-submitted the measure in February 1971, and hearings were held, but there was no appreciable action. On December 15, 1971, I reminded the Congress that a renewed work stoppage was possible on the west coast and that statutory remedies were desperately needed. The Congress recessed without any response.

As soon as the Congress enacts the special legislation before it today, I urge in the most emphatic terms that it turn its attentions immediately to the Crippling Strikes Prevention Act.

RICHARD NIXON.

THE WHITE HOUSE, January 21, 1972.

THE BUDGET MESSAGE OF THE
PRESIDENT, 1972—MESSAGE FROM
THE PRESIDENT OF THE UNITED
STATES (H. DOC. NO. 92-215)

The SPEAKER laid before the House the following message from the President of the United States; which was read and, together with the accompanying papers, referred to the Committee

on Appropriations and ordered to be printed with illustrations:

BUDGET MESSAGE OF THE PRESIDENT

To the Congress of the United States:

The Budget of the United States for the fiscal year 1973 has as a central purpose a new prosperity for all Americans without the stimulus of war and without the drain of inflation.

To provide for the needs of our people by creating new peacetime jobs and revitalizing the economy, we are spending \$38.8 billion more in the current (1972) fiscal year than our receipts.

I make that estimate fully aware that it is a large deficit, but one that is necessary in a year of reduced receipts, as we increase jobs and bring the economy back toward capacity.

I am able to project a 1973 budget, with rising revenues, that cuts this year's actual deficit by \$13½ billion and brings us strongly forward toward our goal of a balanced budget in a time of full employment.

If we were to spend less, we would be "too little and too late" to stimulate greater business activity and create more jobs; if we were to spend more, we would be spending "too much, too soon" and thereby invite a renewal of inflation. Instead, we must spend "enough and on time" to keep the economy on a steadily upward peacetime course while providing jobs for all who want them and meeting the urgent needs of the American people.

The budget for fiscal 1972 reflects this Government's confidence in the American economy's ability and capacity to respond to sensible stimulation. The budget for 1973, held to full-employment balance, diminishes stimulation as the new prosperity takes hold and, by so doing, acts as a barrier against the renewal of inflationary pressure.

I strongly urge the Congress to respect the full-employment spending guideline this year, just as business and labor are expected to respect wage and price guidelines set forth to protect the earning and buying power of the American worker and consumer. In the long run, only the intelligent application of responsible fiscal and monetary policies, coupled with the breaking of inflationary expectations, will bring about peacetime prosperity without rising prices in a free market economy.

Deficit spending at this time, like temporary wage and price controls, is strong but necessary medicine. We take that medicine because we need it, not because we like it; as our economy successfully combats unemployment, we will stop taking the medicine well before we become addicted to it.

Preparing the Federal budget forces us to face up to the choices and challenges before us—to decide what national interests take priority.

The budget is a superb deflator of rhetoric because it calls to account the open-ended promises heard so often in an election year. Proposals, no matter how attractive, must be paid for, and when spending is proposed that takes us beyond full employment balance, that payment must either be in the form of new taxes or rising prices. As the budget

submitted herewith proves, I intend to resist the kind of spending that drives up taxes or drives up prices.

One priority that most Americans will agree upon is the return of power to people, after decades of the flow of power to Washington. One good way of turning rhetoric into reality is to put that principle into practice in the tax area.

Power in its most specific sense is spending power. My own choice between Government spending and individual spending has been clear and consistent: I believe some of that power should be taken from the Federal Government and returned to the individual.

Accordingly, over the past 3 years, the rate of increase in Government spending has been cut nearly in half compared to the 3 comparable years before this administration took office.

From 1965 to 1968, Federal spending increased by 51%—an annual average of 17%; over the 3-year period 1969–72, spending rose by 28%—an average of 9% per year. The increase from 1972 to the spending level proposed in this budget is only 4.1%. This slash in the momentum of Federal spending is all the more dramatic when you consider that 71% of Federal spending is "uncontrollable"—that is, locked into the budget by previous congressional decisions.

By putting the brakes on the increase in Government spending, we have been able to leave more spending power in the hands of the individual taxpayer. In 1973, individuals will pay \$22 billion less in Federal income taxes than they would if the tax rates and structure were the same as those in existence when I took office. To a family of four that earns \$7,500 a year, that means a reduction of Federal income taxes of \$272 this calendar year. I believe that the members of that family can use that money more productively for their own needs than Government can use it for them.

FEDERAL INCOME TAX REDUCTIONS FOR MARRIED COUPLE WITH 2 CHILDREN, 1969–72

[Calendar year]			
Wage income	Taxes paid		Reduction between 1969 and 1972
	1969	1972	Amount Percentage
\$5,000.....	\$290	\$98	\$192 66
\$7,500.....	756	484	272 36
\$10,000.....	1,225	905	320 26
\$15,000.....	2,268	1,820	448 20

The basic shift in the Government's fiscal philosophy has gone relatively unnoticed. The upward curve of Federal spending is beginning to flatten out, while the Federal income tax "bite" out of the individual paycheck is becoming measurably less. This change in direction is as remarkable as it has been unremarked. We are not only talking about returning power—economic power, real power—to people and localities, we are doing something about it.

Throughout this budget, a clear trend can be seen that is designed to return power to people—in real terms, in dollars-and-cents terms. It is a trend which is expressed by Federal income tax cuts, by more State and local participation in program administration, and by more

Federal funds going to State and local governments without restrictions.

This is the right course for the American people; it reflects their will; I remind the Congress of its power and responsibility to make revenue sharing and other returns of power to people a reality in this current session.

Another priority—one upon which so much of our progress at home depends—is to create a peaceful world order. We could never fulfill our hopes for a full generation of peace from a position of weakness; we can only negotiate and maintain peace if our military power continues to be second to none.

A demagogue may find it easy enough to advocate that we simply allocate necessary defense dollars to social programs, but a responsible Congress and a responsible President cannot afford such easy answers.

Our success in reducing our involvement in Vietnam by 480,000 men before May 1, 1972, and comparable materiel reductions will help enable us—for the first time—to spend more in the Department of Health, Education, and Welfare than we spend in the Department of Defense.

But it would be foolhardy not to modernize our defense at this crucial moment. Accordingly, and still within our full-employment guideline, I propose a \$6.3 billion increase in budget authority for military programs, including vitally needed additions to our strategic forces and our naval strength.

In the 1972 defense appropriation bill, which the Congress did not pass until December of 1971, the Congress cut my appropriation request by \$3 billion. My 1971 defense request was cut by the Congress by \$2.1 billion. These were costly cuts, especially in the field of research and development.

We must be prudent in our defense spending, making certain we get the best defense for each taxpayer dollar spent. Productivity here too must be increased, but we cannot afford to be "penny-wise and pound-foolish." *Nothing could be more wasteful than to have to pay the price of weakness.* It costs far less to maintain our strength than it would cost to fall behind and have to catch up, even if that could be done. I urge the Congress not to make the costly mistakes it has made in previous years in its defense cuts; the budget as submitted represents America's actual military needs, and offers the best means to secure peace for the coming generation.

Another priority of this budget is to direct the resources of the Federal Government toward those needs the American people most want met and to the people who are most in need.

Welfare Reform, with training and work incentives, with a new fairness toward the working poor and a minimum income for every dependent family, is a good idea whose time has come. It has been proposed and studied; it has been refined and improved upon; it is ripe for action now. Further delay in enactment would not only be unwise in fiscal terms, but cruel in human terms. The proposed program is infinitely better than the wasteful, demeaning system that now calls itself welfare. This budget

proposes appropriation of \$450 million to start the replacement of welfare with "workfare."

Revenue Sharing has been debated at length. Each day and each State's experience only confirms the inescapable fact that it is wanted and needed—now. The States and cities urgently require this aid; individual Americans need it for everything from improved law enforcement to tax relief. This budget allocates \$2.5 billion in 1972 and \$5.3 billion in 1973 to make General Revenue Sharing a reality now.

Schools need emergency assistance now to make necessary adjustments to provide equal educational opportunity. This budget allocates \$500 million in 1972 and \$1 billion in 1973 for this purpose.

Government reorganization is needed now, to deliver more services for each tax dollar collected. The pain this change will bring to special interests and bureaucracies is less important than the pain existing bureaucratic arrangements now cause the people. A reorganized government will be a better, more efficient government.

Health care must be improved and made available to all Americans, without driving up medical costs. This budget provides for legislative actions and necessary funding to make better health care available on the most widespread basis, to emphasize preventive medicine, and to pursue an all-out campaign to eliminate cancer and sickle cell anemia.

Drug abuse prevention must be intensified to curb narcotics trafficking and to expand Federal drug rehabilitation efforts coordinated by the White House Special Action Office. The budget allocates \$594 million to these and other drug abuse prevention campaigns.

A new commitment to the aging is long overdue to add dignity and usefulness to their lives. This budget provides for total spending of \$50 billion on behalf of the aging, \$16 billion more than in 1969. Most importantly, \$5½ billion will be added to the incomes of older Americans when proposed social security and Welfare Reform legislation is fully in effect. In addition, service initiatives will be launched that will focus on better nutrition and other services designed to help the elderly live independently in their own homes.

Scientific research and technology, so essential to our national security, also must focus more directly on solving our domestic problems, increasing our productivity, and improving our competitive position in international trade. The budget allocates \$17.8 billion for this, an increase of \$1.4 billion over 1972.

Veterans of the Nation will receive the special consideration they deserve, with particular emphasis on those reentering civilian life after service in Vietnam. This budget provides more than \$12 billion in budget authority for veterans benefits, with an increase of over \$1 billion for modernization, replacement, and record staffing of VA hospitals, higher compensation for disabled veterans, and enhanced job training opportunities, higher GI bill allowances, and other improved services.

Details on each of these proposals are given later in this Budget Message.

ECONOMIC SETTING AND FISCAL POLICY

Economic setting.—In January 1969, the Nation's chief economic problem was mounting inflation.

Anti-inflationary policies that we adopted began gradually to lower the rate of price increases. However, progress was slower than we had hoped and was accompanied by an unacceptable increase in unemployment. This increase was in part a result of the transition of 2½ million people from wartime to peacetime activities.

During 1970 and 1971, responsible economic policies provided stimulus to expand the economy. The budgets for these years had actual deficits of \$2.8 billion and \$23 billion, but full-employment surpluses of \$3.1 billion and \$4.9 billion.

As a result of these policies, progress was made in moderating inflation and in expanding real output in the first half of calendar year 1971. However, inflation and unemployment continued to be unacceptably high. Meanwhile, a deterioration in the trade and balance of payments position of the United States, caused in part by the inflationary pressures of the latter half of the 1960's and aggravated by weaknesses in international monetary and trading arrangements, required decisive corrective action.

Action was called for and action was taken.

On August 15, 1971, I announced a new economic policy that:

- imposed a 90-day freeze on wage and price increases;
- proposed a job development tax credit to increase employment by stimulating investment;
- recommended repeal of the automobile excise tax and an early increase in the personal tax exemption, which together would provide an extra \$8 billion of stimulus to the economy over a 3-year period;
- reduced planned Federal spending in 1972 by \$5 billion; and
- suspend the convertibility of the dollar into gold and other reserve assets and imposed a temporary 10% import surcharge, thereby laying the foundation for improved trade performance and for basic changes in the international economic system.

The public responded to the new economic policy with the widespread support essential to its success.

This policy has begun to move the economy toward full employment without inflation and without war, a condition we have not experienced in this generation. The consumer price index rose only 1.7% at an annual rate from August to November—the lowest rate of increase for a comparable period in 4½ years. From August to December, industrial wholesale prices rose only 0.5% at an annual rate, after increasing at a 4.6% annual rate during the first 8 months of the year.

Now we have moved beyond the wage and price freeze into a transitional period of flexible wage and price controls and on the way to a return to reasonable stability under free markets.

The proposed tax reductions were part of the Revenue Act of 1971, which became law on December 10. Because of the general expectation that the Congress would approve them, the economic effect of these reductions began to be felt immediately after August 15. Automobile sales soared to a record rate in October, interest rates declined, and business investment plans—after some hesitation—are being revised upward. Taken together, these results will create many of the new jobs needed for full employment.

Negotiations with our international trading partners produced a major agreement in mid-December. Exchange rates were realigned through a devaluation of the dollar and revaluation of the currencies of some of our major trading partners. The 10% surcharge on imports was removed as promised. That agreement will improve the competitive position of U.S. industry and agriculture and permit us to move forward in negotiations on fundamental reform of the international monetary system and on elimination of barriers to expanded international trade.

Each element of the new economic policy has a vital role in sustaining the momentum of our economy. The 1973 budget carries out a fiscal policy that is responsive to the needs of the Nation and responsible in holding down inflation.

Budget policy.—The full-employment budget concept is central to the budget policy of this Administration. Except in emergency conditions, *expenditures should not exceed the level at which the budget would be balanced under conditions of full employment.* The 1973 budget conforms to this guideline. By doing so, it provides necessary stimulus for expansion, but is not inflationary.

We have planned the 1973 expenditures to adhere to the full-employment budget concept, even though this has required making many difficult decisions. It now appears that the 1972 full-employment budget will be \$8.1 billion in deficit. While our economy can absorb such a deficit for a time, the experience of the late 1960's provides ample warning of the danger of continued, and rising, full-employment deficits. The lesson of 1966-68, when such deficits led to an intolerable inflation, is too clear and too close to permit any relaxation of control of Government spending.

Keeping the 1973 budget in full-employment balance will not be easy. The tax changes that have been made during my Administration have reduced 1973 full-employment revenue by a net total of \$20 billion. This reduction has been good for the economy, and has given each of us more freedom to decide how he will spend his money and live his life. However, the lower receipts and the need to balance the 1973 full-employment budget require that the Congress carefully consider the Nation's priorities, as I have done in preparing this budget. The task is made harder by the fact that the growth of programs—especially, uncontrollable programs, which now account for 71% of total outlays—could easily lead to another full-employment deficit.

in 1973 if the Congress adds to my recommendations for domestic spending as it did last year.

The simple fact is that not all programs can or should grow. I urge the

Congress to face squarely the difficult questions involved in setting priorities within the overall constraint of a full-employment balance, and not to take the dangerous course of trying to match

domestic spending increases with cuts in vitally needed defense funds.

SUMMARY OF THE 1973 BUDGET

For 1973, the Federal budget at full-employment is approximately in balance.

THE BUDGET TOTALS

[Fiscal years. In billions]

Description	1970 actual	1971 actual	1972 estimate	1973 estimate
Budget receipts.....	\$188.4	\$197.8	\$220.8	
Budget outlays.....	211.4	236.6	246.3	
Deficit (—).....	—23.0	—38.8	—25.5	
Full-employment receipts.....	214.1	225.0	245.0	
Full-employment outlays ¹	209.2	233.1	244.3	
Full-employment surplus or deficit (—).....	4.9	—8.1	.7	

¹ These estimates reflect the fact that under conditions of full employment outlays for unemployment insurance benefits and the Emergency Employment Act program would be lower. Spending under other programs are also affected by employment conditions. For example, outlays for food stamps, social security benefits, public assistance, and veterans' pensions would also be lower

under conditions of full employment, and interest would be higher. If adjustments were feasible for all such items, full employment outlays probably would be lower.

² Including loans in expenditure account.

³ Excluding loans held by Government or Government-sponsored agencies.

Budget receipts in 1973 are estimated to be \$220.8 billion, which is \$23 billion higher than in 1972. If the economy were operating at full employment throughout the year, the revenues produced would be \$245 billion.

Estimated receipts for 1973 reflect a reduction of \$6.9 billion as a result of the tax cuts proposed in the new economic policy and incorporated in the Revenue Act of 1971. About \$5 billion of this reduction is in individuals' taxes. The resulting increase in consumers' purchasing power will be a major source of strength in the economy.

Budget outlays in the coming year are expected to be \$246.3 billion, an increase of \$9.6 billion over the current year. This outlay increase will also help provide jobs and business investment in the year ahead, while remaining within the limit set by full-employment budget guidelines. If the economy were operating at full employment throughout the year, outlays for unemployment insurance benefits and the Emergency Employment Act—and outlay totals—would be lower than the amounts included in the 1973 budget.

This budget requests \$271 billion of **budget authority**—the right to make commitments to spend—in 1973. About \$185 billion of this amount will require new action on the part of the Congress.

STRATEGY FOR PEACE

The highest priority of my Administration is to bring about an era of peace and prosperity. We are pursuing this goal through partnership with our allies, military strength adequate to deter aggression, negotiations with those with whom we differ, and foreign assistance that encourages self-sufficiency.

We seek peace to reduce the human suffering that is an inevitable part of war. With peace we can release energies and resources that can be used to improve the quality of life everywhere. We have accomplished much of this high purpose during the past 3 years—particularly as a result of the Vietnamization program.

- South Vietnamese forces have assumed the responsibility for ground combat operations. Vietnamization

is moving forward in other areas as well. As a result:

- U.S. casualties due to hostilities have been averaging less than 10 per week, as compared with 300 per week in 1968;
- the authorized troop level in South Vietnam will have been reduced from 549,500 in January 1969 to 69,000 as of May 1, 1972; and
- draft calls have been reduced from a Vietnam war high of 382,000 to 94,000 in calendar year 1971, as we move toward the goal of zero draft calls.
- Negotiations with the Soviet Union on strategic arms limitations are progressing.
- Agreement has been reached with NATO members on a 5-year plan to strengthen their defenses, with a substantial increase in their financial contribution.
- Security assistance programs are being planned with a view toward better coordinating them with our overall security effort. In some cases, this may permit additional reductions in U.S. manpower needs overseas.

Our efforts toward peace have not been—and will not be—at the expense of our military strength. Indeed, measures to maintain that strength are a vital part of our peace efforts. Accordingly, this budget proposes a substantial increase in defense programs to provide for the following improvements:

- additional resources for our strategic forces to increase emphasis on our sea-based strategic deterrent force and to continue modernization of present offensive and defensive forces;
- a major increase in shipbuilding, reflecting the high priority I place upon modernizing our naval forces;
- a sizable increase in research and development to assure continuation of our technological superiority;
- newer equipment, higher manning levels, and further training to improve the ability of the National Guard and Reserves to supplement the Active Forces;
- continued development and procurement of more effective weapons sys-

tems for the land and tactical air forces; and

- a major effort to achieve an all-volunteer force. Toward this end, a career in the Armed Forces was made more attractive by doubling the basic pay of first time enlistees in November 1971. Other increases in military pay are budgeted for January 1972 and 1973.

Strong foreign assistance programs are also an essential part of our strategy for peace, serving to:

- implement the Nixon Doctrine by helping foreign nations assume a greater share of the responsibility for their defense;
- strengthen the economies of developing nations; and
- provide humanitarian assistance and relief.

We must be steadfast in our foreign assistance. We are moving from an era of confrontation to an era of negotiation and increased reliance on our allies to defend themselves. In this setting, I have carefully weighed our basic assistance requirements against our domestic priorities, and now submit a program based on a thorough assessment of what is essential. We must not undercut the efforts of developing nations to stand on their own. Nor can we shortchange the nations now shouldering the burden of their own defense after they—and we—have given so much.

MEETING HUMAN NEEDS

My Administration has begun widespread reform and has sought to take new directions in Federal human resources programs. From 1969 to 1972, outlays for these purposes grew by 63%, while total budget outlays grew by only 28%. This increase is designed to buy such real improvements as:

- greater benefits for the aged and other beneficiaries under social security;
- additional training opportunities for the disadvantaged;
- reform of the food stamp program to establish national standards and to give more help to the most needy;
- better health care for millions of

low-income persons and for the aged;

- expanded and improved veterans programs;
- increased educational opportunities for students from lower income families; and
- extension of unemployment insurance coverage to more Americans.

As a result, human resources spending will be 45% of the 1973 budget, while defense programs will be 32%. Our policy of ending our involvement in the Vietnam war has helped make this possible by freeing resources to keep us strong externally as well as internally. This exactly reverses the priorities of the prior administration. In 1968, the defense share was 45% and the human resources share was 32%.

While this is a substantial record of progress, our work is far from complete.

This budget recommends new initiatives and emphasizes many reforms proposed last year—on which the Congress has yet to complete action. These proposals are a necessary part of my efforts to return more of the power to the people, to strengthen the capacity of State and local governments to govern, and—especially by assuring the civil rights of all our citizens—to contribute to personal freedom and human dignity.

To help overcome the fragmentation in human services, which so often loses sight of the whole person and the family, I am proposing Allied Services legislation that would assist State and local governments to respond to human needs more efficiently, more flexibly, and more comprehensively. The legislation would authorize the transfer of Federal funds between Department of Health, Education, and Welfare programs not included in revenue sharing, the waiver of cumbersome Federal program requirements, and limited funding for planning and administrative costs.

Welfare Reform.—Almost four decades of experience with the present welfare system is more than enough to teach us that the system has failed.

- It takes away the incentive to work.
- It lacks adequate job opportunities and child care services that would encourage and assist recipients to become self-supporting.
- Its benefits are inadequate to the needs of its recipients.
- It encourages families to break up so that they might qualify for assistance.
- Its 54 different systems with diverse standards defy efficient administration and create severe inequities.

I urge that the Congress approve promptly the Administration's Workfare legislative proposal. My proposal would remove the greatest evils of the present system by:

- emphasizing work incentives, work requirements, job training and public employment opportunities, child care, and reform of social service programs to encourage families to become and remain self-supporting;
- providing benefits for the first time to families with fathers who work but who do not earn enough to pro-

vide a decent standard of living for the family;

- setting a national minimum income standard for all families with children in America;
- establishing uniform national eligibility standards;
- reducing the fiscal pressure on States caused by rapidly rising welfare expenditures; and
- raising income limits to allow retired persons to earn more without loss of benefits.

Nutrition for the needy.—This Administration has taken decisive steps to feed the hungry and eliminate malnutrition in America. Most importantly, major reforms of the Food Stamp program that I proposed are now in operation. New regulations will:

- establish uniform eligibility standards that equal or exceed the present State standards in all States;
- concentrate benefits on those most in need;
- guarantee family stamp allotments for the needy large enough to purchase a nutritionally adequate diet, with increases tied to the cost of living; and
- provide a work requirement for those able to work.

As a result of these and earlier Administration actions, we have provided more benefits to more people in need than ever before. Food stamp outlays have increased ninefold from 1969 to 1973—reaching an estimated \$2.3 billion in benefits for 13 million poor in 1973.

In addition, there will be nearly a threefold increase between 1969 and 1973 in the number of needy schoolchildren receiving subsidized lunches.

A new dignity for the aging.—Last November, I convened the White House Conference on Aging to develop proposals for improving the lives of our senior citizens. The recommendations of the Conference clearly indicate that programs to aid the aged should serve two essential purposes.

- They should provide the aged with sufficient income and necessary services to permit them to remain independent.
- They should assist aged citizens to live active and useful lives.

This budget is responsive to these recommendations. In 1973, the Federal Government will spend nearly \$50 billion to assist the Nation's 21 million aged persons. This is \$16 billion more than the amount spent to assist the aging in 1969.

Several major proposals in this budget are responsive to the special needs of the aged:

- social security and workfare legislation that will add \$5.5 billion to the income of the elderly when it is fully in effect and provide an income floor for older Americans;
- elimination of the monthly premium for supplementary medical insurance in Medicare that will save the elderly \$1.5 billion in the first full year;
- \$100 million, a fivefold increase over the amount budgeted last year, for

the Administration on Aging to provide additional homemaker services, home health aides, transportation, and nutrition services to help older Americans remain in their homes;

- a tripling of the retired senior volunteer program, a doubling of the foster grandparents programs, and a doubling of jobs programs for older persons with low incomes from the levels budgeted last year to enable more of the aged to engage in useful community projects; and
- tax incentives that will broaden the coverage of private pension plans.

The Congress has not yet acted on the major reform in the social security system that I proposed last year—providing automatic adjustments for increases in the cost of living. The older Americans who depend on their social security checks have waited long enough. I urge the Congress to act promptly on this reform and, in addition to:

- raise benefits by 5%, effective July 1, 1972, making the cumulative increase more than one-third in less than 3 years;
- allow recipients to earn more money from wages without losing their benefits; and
- increase widows' benefits up to the level their deceased husbands would have received.

Improving health care.—Almost a year ago, I submitted a health message to the Congress establishing a National Health Strategy for the 1970's. This strategy was directed toward three objectives: prevention of health problems, assured access to medical care, and greater efficiency within the health care system.

To achieve these objectives, I urge the Congress to act promptly on the pending National Health Insurance Standards Act, the proposed Family Health Insurance Plan, and legislation to support the development of health maintenance organizations.

In addition, in 1973, I propose further actions that are essential to my national health strategy, including:

- a substantial increase in funds for the attacks on cancer and sickle cell anemia;
- continued financial support to our health manpower training institutions and to their students;
- expanded efforts to develop health maintenance organizations as a model of improved health care delivery;
- significant increases for protecting consumers from hazardous food and products;
- expanded community programs to deal with special health problems, such as drug addiction and alcoholism;
- improvement of the Medicare program by eliminating the monthly premium for physician services; and
- substantial increases in medical personnel at veterans' hospitals and in funds for constructing new and better hospital facilities for veterans.

Drug abuse prevention.—Last summer, I emphasized the need for a coordinated attack on drug abuse and drug depend-

ency in this country and created the Special Action Office for Drug Abuse Prevention and the Cabinet Committee on International Narcotics Control to monitor and coordinate a concerted Federal effort. Legislation to give the Special Action Office a statutory base was proposed by the administration more than 7 months ago and should be approved promptly.

In 1973, I am proposing an increase in program levels of \$120 million for treatment, rehabilitation, and law enforcement programs, including control of illicit supplies. Funds for research, education, prevention, treatment, and rehabilitation will increase from \$310 million in 1972 to \$365 million in 1973 while obligations for law enforcement activities will grow from \$164 million in 1972 to \$229 million in 1973. Under the direction of a Special Consultant to the President, we are mounting a coordinated attack on dope sellers in 24 cities throughout the country.

Guaranteeing civil rights.—All of our citizens should expect a first priority of government to be protection of their civil rights. My Administration is committed to a course of action to insure that people can share fully in the benefits of our society regardless of race, sex, religion, or national origin. Significant accomplishments have been made. Much remains to be done:

- We will continue the increase in minority hirings in the Federal service, especially in professional and supervisory positions, despite cutbacks in Federal employment. More than 13,000 minority employees were hired between November 1969 and May 1971, and minority increases in upper and middle grade levels occurred at much faster rates than for nonminorities. Minorities now constitute approximately one-fifth of all Federal employees.
- We will continue to press efforts to assure that women will hold more jobs with greater responsibilities than ever before. Between October 31, 1970 and October 31, 1971, women holding Federal positions at levels GS-13 and above increased by 7%.
- We will continue the upgrading of efforts to open opportunities for Spanish-speaking Americans. The budget of the Cabinet Committee on the Spanish-Speaking will be increased by 42%.
- We will step up our efforts to promote self-determination for Indians on reservations and to assist them in their economic development. For example, legislation to establish and Indian Trust Counsel Authority has been proposed to guarantee that the rights of the Indian people in natural resources are—at last—effectively defended. Outlays for programs benefiting Indians on reservations will reach \$1.2 billion in 1973.
- We will double our resources and our efforts to assure that Federal contractors meet the commitments of their affirmative minority hiring plans. Compliance reviews will increase to 52,000 compared to 12,300 in 1969.

- We will continue to accelerate Federal financial aid and technical assistance to increase minority business opportunities in America. Outlays for these programs have grown from \$213 million in 1969 to \$716 million in 1973.
- We will continue our efforts to help with the problems of school desegregation and upgrade our assistance to black colleges and other developing institutions of higher education. The Emergency School Act will provide \$1.5 billion over a two-year period to assist in school desegregation.
- We will add to our efforts to eradicate unlawful discrimination in the sale, rental, or financing of housing. Expenditures for these programs will increase 20% in 1973 to \$11 million.
- We will increase the outlays of the Equal Employment Opportunity Commission from \$22 million to \$30 million to enhance their capability to end discrimination in the private sector.

To carry out these plans, I have recommended total expenditures of \$2.6 billion for Federal civil rights activities in 1973. This compares with \$911 million in 1969. Outlays will increase by 25% between 1972 and 1973.

Veterans benefits.—In moving toward a generation of peace, we will provide improved benefits for the men and women who have helped obtain that peace through military service and great sacrifice. For the returning veteran, this budget demonstrates our concern by providing greater opportunities for entry into jobs, education, and training. For those who have been disabled in service, this budget provides medical care of high quality that is better tailored to their needs—together with greater benefits for rehabilitation and compensation. For the widows and children of those who did not return, this budget provides additional dependents' compensation, education, and training. Budget authority for these and other benefits and services will be increased by \$1 billion in 1973—to \$12.4 billion.

Marked benefit improvements will include:

- an increase of 10,000 in average employment in VA medical facilities, raising the staff to patient ratio for VA hospital care to a record 1.5 to 1;
- a 66% increase in budget authority for construction of new and better hospital facilities, including seven new replacement hospitals;
- improvements in the structure and levels of veterans compensation benefits, to insure more adequate benefits for the most seriously disabled; and
- an increase in the monthly individual benefit payment for the GI bill from \$175 to \$190, linked with other program improvements I have proposed.

Education and manpower training.—The need for reform in Federal education and manpower training programs has not diminished since last year, but the reforms I recommended then are still awaiting action by the Congress.

We must reform these programs so

that people can achieve their potential intellectual and occupational skills. For this reason, I again emphasize the need for action on proposals to:

- substitute special revenue sharing programs for categorical grant programs in both of these areas;
- assist school districts in desegregation efforts;
- establish a National Institute of Education to support research and experimentation and a National Foundation on Higher Education to promote reforms in our colleges and universities;
- provide additional training opportunities and strong incentives under Welfare Reform for welfare recipients to undertake suitable employment or job training;
- assure the returning veteran greater opportunities for jobs, education, and training; and
- reform student aid programs for higher education to increase their effectiveness and direct more aid to students from lower income families.

Let me use that last proposal as an example. I believe that no qualified student should be denied a college education because he cannot afford to pay for it. Most Americans and most Congressmen agree. I have proposed the legislation that will make this a reality. I am ready to sign that legislation. But there it sits, in Congress, while thousands of young people miss their chance.

FIGHTING CRIME

When I took office, the safety and health of our citizens were menaced by rising crime. Violent crimes and illegal traffic in narcotics and dangerous drugs were threatening to get out of control. A crisis existed, and prompt action was called for. I directed that a national strategy to combat crime be developed and promptly put into effect.

Any successful strategy to combat crime must recognize that State and local governments are responsible for most law enforcement in the United States. Such a strategy must also provide for the prevention of crime and for the rehabilitation of criminals.

I took action early to strengthen the hand of State and local government law enforcement agencies.

- Outlays for law enforcement assistance were increased substantially. They will total \$595 million in 1973, nearly 18 times the \$33½ million of 1969.
- Law enforcement special revenue sharing was proposed to give State and local governments increased flexibility to use Federal funds in ways that are best suited to solving local crime problems. *The Congress should act on this proposal.*

Federal law enforcement activities are also an essential part of our efforts to combat crime—especially organized crime and traffic in narcotics and dangerous drugs. In 1973, we will:

- step up our attack against the criminal systems that import and distribute narcotics and dangerous drugs; and
- continue to enforce vigorously the

Organized Crime Control Act of 1970.

Outlays for law enforcement activities will be \$2.3 billion in 1973, an increase of \$1.7 billion over 1969.

My Administration has given priority to combating crime in our Nation's Capital, where the Federal Government has a special responsibility. These efforts have been successful. Serious crime in the District of Columbia in 1971 was approximately 14% below the level of the previous calendar year.

IMPROVING THE ENVIRONMENT

Protecting and improving our environment is a never-ending job. The basic responsibility rests with States and local governments, industry, and the public. However, the Federal Government must provide leadership.

In 1970, the Environmental Protection Agency was established to improve our pollution control efforts, and the Council on Environmental Quality was established to advise on problems and policies related to environmental quality.

Now, new initiatives are being undertaken.

- To clean our air, we have:
 - set national standards for the six major air pollutants and guidelines for State implementation plans to meet these standards;
 - set pollution abatement standards for new facilities in five industrial categories;
 - recommended a sulfur emissions tax to encourage reductions in this major source of pollution; and
 - supported research and development to provide a low-pollution alternative to the conventional internal combustion engine and to provide means to reduce pollution from burning coal and oil.
- To clean our water, we have:
 - required permits under the Refuse Act to control discharges of industrial pollutants into our waterways;
 - proposed legislation to control dumping into oceans, coastal waters, and the Great Lakes; and
 - initiated a 3-year, \$6 billion program to assist State and local governments in building sewage treatment facilities.
- To reduce noise pollution, we have proposed legislation to regulate and to set labeling requirements for major sources of noise.
- To improve and protect health, we have proposed new legislation on pesticides to regulate their use and to strengthen and coordinate Federal and State control efforts.
- To use our lands more wisely, we have proposed legislation on power-plant siting, mined area protection, and land use regulation.

Many of the proposals that I have submitted to the Congress have not yet been enacted. Our Nation cannot make the major efforts that are needed to protect and improve the environment unless Congress will respond to the urgent need for this legislation. *I urge rapid approval by the Congress of these pending environmental proposals.* With the passage of this legislation—and the additional proposals that I will submit to Congress

in a special environmental message in February—we will be able to move forward vigorously in all areas of environmental quality.

The outlays requested for major environmental programs in 1973 are \$2.5 billion, *more than three times the 1969 level.* These funds will support expanded efforts in all major environmental programs. For example, Federal programs have assisted in increasing the population served by secondary sewage treatment from 91 million in 1969 to 115 million in 1973, and in removing 27% more pollution from municipal sewage effluent than was removed in 1968.

Parks and open spaces.—As our expanding economy provides higher standards of living and increased opportunity for leisure, our citizens will want additional parks and other recreational facilities, especially in and near cities. We also want to assure the preservation of nationally important natural and historic areas. This budget provides for meeting these future needs.

I am proposing that the Land and Water Conservation Fund annual authorization be fully funded to provide:

- \$197 million in grants for State and local governments to assist them to acquire and develop lands for recreation and parks; and
- \$98 million for the acquisition of nationally significant natural or historic areas by Federal agencies.

In the period 1970–73, this program will have provided over \$1.1 billion, compared to \$535 million provided for this purpose in 1966–69.

The budget also proposes to continue, under the Legacy of Parks program, the transfer of surplus Federal property to State and local governments for recreation facilities, parks, and historic sites. In 1973, over 20,000 acres, with a market value of \$120 million, will be transferred under this program. For the period 1969–73, a total of 47,000 acres of land with a market value of \$245 million will have been provided to State and local governments.

Community development and housing.—During the past 3 years, solid progress has been made toward providing decent, safe, and sanitary housing for every American. In calendar year 1971, the volume of new housing construction—more than 2 million new starts—was the highest in the history of this country. The construction of Government-assisted housing for low- and moderate-income families has also been increased to record high levels over the past 3 years.

This Administration has taken steps to decentralize Federal programs that assist community development and housing activities to make them more responsive to local needs and preferences.

Our efforts to aid community development and to provide better housing are still not as productive as they can be. I have proposed major reforms that would make them more so:

- a program of urban community development revenue sharing that would replace five categorical grant programs and provide State and

local governments \$2.3 billion in 1973;

- a Department of Community Development that would consolidate in one organization the many programs and activities that are essential to community development;
- legislation that would simplify and consolidate housing programs; and
- a new planning and management assistance program that would help States and localities improve their executive management capabilities.

These reforms, pending before the Congress, should be enacted promptly.

Agriculture and rural development.—

This Administration has made major improvements in programs to help farmers share equitably in the Nation's progress. In addition, I have proposed a new program for rural community development through revenue sharing. I urge the Congress to enact this program in time to be effective on July 1, 1973.

I will shortly recommend further legislation to:

- improve the availability of credit for both farmers and rural residents; and
- give greater emphasis to our efforts to encourage community and industrial development in rural areas.

My budget proposals for 1973 will also further our goal of making all rural residents first-class citizens living in first-class communities. Specifically, we will:

- expand the availability of rural housing;
- strengthen farm incomes through orderly handling of the bumper 1971 grain crop; and
- help finance critically needed waste disposal and water supply systems for nearly 500,000 rural families.

SCIENCE AND TECHNOLOGY IN THE SERVICE OF MAN

In this year's budget, and subsequently, I shall propose how we can accelerate the effort I began 3 years ago to turn science and technology to the service of man.

Research and development have been critical elements of our national life since World War II. They have been the key to our national security and health and instrumental in the solution of many important civilian problems. Research and development also have made significant contributions to our economy in terms of jobs, productivity, and foreign trade.

This Administration has continuously searched for more effective ways to turn science and technology to the service of man. Since 1969, funds for civilian R & D have increased 65%. We have started new programs and strengthened others to help focus R. & D. on priority human needs.

We have been reordering our research and development investments in defense and space. We have reassessed the space program and placed it on a firm future footing with increased attention to practical and economical applications of space and reductions in the cost of manned space flight.

At the same time we have strengthened our defense research and develop-

ment capability to insure that the country will not face the possibility of technological surprise or lack of deterrent power necessary to protect our national security. To provide this assurance, budget authority for Department of Defense research, development, test, and evaluation is being increased \$838 million to an all-time high of \$8.5 billion in 1973.

To emphasize this Administration's strong belief that science and technology can make significant contributions to the quality of American life and to economic growth, I propose additional steps in 1973 to:

- secure the contributions that science and technology can make to our national life;
- initiate a series of experiments to find better ways to encourage private investment in R. & D. including investment by small entrepreneurial R. & D. firms, which have made significant contributions to the generation and exploitation of innovative ideas;
- draw more directly on the capabilities of those agencies which have created the technologies that harnessed the atom and conquered space. AEC and NASA will increasingly use their talents on such problems as clean, economical energy, and clean, safe, and fast transportation systems. For example, this year we shall have the agency which sent men to the moon and back begin to assist the Department of Transportation in finding better ways to send people downtown and back; and
- review carefully our policies in areas of economic regulation, which may unnecessarily restrict wider utilization or development of new technical advances.

I am also initiating new programs and strengthening research and development aimed at three important objectives:

- protecting man and nature from each other;
- using the resources of nature to serve mankind's needs; and
- pioneering new and improved human services.

The overall result of our efforts to strengthen science and technology in the national interest is reflected in the 1973 increase of \$1.4 billion in obligations to a total of \$17.8 billion I firmly believe this large increase is vital to the security, welfare, and economic well-being of our country.

IMPROVING GOVERNMENT

Improved efficiency and responsiveness at all levels of government is a major objective of this Administration. One of my first acts as President was to direct that an intensive review be made of our Federal system of government. We found that the executive branch was badly organized to accomplish domestic objectives. We found that State and local governments were often unable to meet the needs of their citizens because of a fiscal crisis that was steadily worsening. And we also found that Federal programs to assist State and local governments had become a maze of separate programs, understood only by mem-

bers of a new profession—grantsmanship specialists.

The Administration has developed a comprehensive strategy for dealing with these problems. This strategy includes:

- *Revenue sharing*—an important element of the strategy—to provide fiscal relief and to strengthen State and local governments;
- *Reorganization of the executive branch* to create four new departments structured around the basic domestic activities of government;
- *Federal Assistance Review (FAR)* to strengthen delivery of Federal assistance to State and local governments;
- *Regional councils* to help in our program of returning power to the people;
- *Technical assistance* to help State and local governments improve their organizational structures and management processes; and
- *Budget reform* to enable the executive branch and the Congress better to serve the people.

Revenue sharing.—A year ago I proposed to the Congress a General Revenue Sharing program and six special revenue sharing programs to relieve the fiscal crisis of State and local governments and to eliminate some of the problems of the present categorical grant system. No action has yet been taken on these proposals. I again urge that Congress enact these proposals.

If enacted to become effective January 1, 1972, as I am proposing, the General Revenue Sharing program would:

- provide \$2.5 billion of budget authority in fiscal year 1972 and \$5.3 billion in fiscal year 1973 to help relieve the fiscal plight of State and local governments;
- enable those units of government closest to the people to determine how the funds would be spent to meet local needs and priorities; and
- reduce pressures to raise State and local taxes.

The special revenue sharing programs would provide assistance to State and local governments for six broad purposes, with discretion in the use of these funds to be left primarily to State and local governments. The following table shows the categories proposed and the first full year budget authority that would be provided for each one:

Revenue sharing proposal for first full year	
Description	Billions
General revenue sharing.....	\$5.3
Special revenue sharing:	
Urban community development.....	2.3
Rural community development.....	1.1
Education	3.2
Manpower training.....	2.0
Law enforcement.....	0.9
Transportation	2.8
Total.....	17.6

In total, these revenue sharing proposals would provide \$17½ billion to State and local government in their first full year of operation. The magnitude of the fiscal crisis and the inefficiency and unresponsiveness of the present grant system make favorable action during this session of Congress an urgent need. We can ill-afford further delay.

Reorganization of the executive branch.—In my 1971 State of the Union message, I proposed reform of the executive branch by regrouping functions now scattered among seven cabinet departments and several independent agencies into four new departments organized around the major domestic purposes of government: Community development, natural resources, human resources, and economic affairs.

In my message on departmental reorganization, which I transmitted to the Congress on March 25, 1971, I described in detail the need for a comprehensive restructuring of the domestic executive departments to equip them to serve our Nation in the last third of this century. I cited the fragmentation of Federal responsibility for education matters, for manpower programs, for the development and conservation of water resources, for the management of public lands, and for assisting communities in meeting their needs for water and sewer services.

Typically, three or four separate departments or agencies are now engaged in administering overlapping or conflicting programs concerned with a single government objective. This dispersion and duplication of related functions has increased the costs of administration, generated interagency conflict and rivalry, weakened the departmental secretary as a leader in program development and execution, and imposed inexcusable inconvenience on the public being served. The excessive number of departments and agencies independently pursuing related goals has also frustrated able officials at all levels, impeded the decentralization of Federal operations, and made the coordination of administration in the field inordinately difficult.

By pulling together under each secretary the bulk of the programs which contribute to the achievement of a stated departmental mission, we can assure the prompt decisionmaking, the improvement of procedures, and the integration of Federal activities which we need for effective government.

Legislation and detailed plans for the reorganization have been transmitted to the Congress. I urge the early enactment of these basic proposals. They are vital elements of my strategy to narrow the gap between what the Federal Government promises and what it delivers.

Federal Assistance Review (FAR).—In 1969, I initiated the Federal Assistance Review program to streamline the Federal grant system. Primary emphasis was placed on improving the operation of Federal programs to strengthen the capacity of State and local governments. Achievements include:

- standardization of regional boundaries;
- simplification of Federal review procedures for grant applications;
- substantial delegation of authority to Federal field offices;
- a system for informing Governors and State legislatures of approval action on all Federal grants;
- a Project Notification and Review System, utilizing State and regional clearinghouses to facilitate State

and local review of Federal grant applications at the formative stage;—a pilot integrated grant administration program, enabling State and local governments to apply for several Federal assistance grants through a single application; further consolidation and joint funding authority is being sought under proposed legislation; and—more participation by State and local officials in determining how Federal funds are used to respond to local needs.

Federal regional councils.—As part of the FAR effort, Federal Regional Councils, consisting of the regional directors of the major human resources agencies, were established in each of the 10 regions. The Councils have now demonstrated considerable potential for increasing Federal responsiveness and coordination at the State and local level.

I shall shortly constitute the Councils formally as bodies within which regional directors of the major grant agencies develop common strategies and mechanisms for program delivery, review program plans jointly with Governors and mayors, and resolve regional interagency issues expeditiously.

Technical assistance.—Since 1969, the Federal Government has offered broad-based organization and management assistance to State and local governments who have requested it. The assistance has taken the form of a review of the organizational structures and the major management processes of each requesting government. Improvements are then suggested. Subsequently, technical and other assistance is available to help the governments implement improvements they think are important. Even though resources are limited, I intend to encourage this form of technical assistance.

Reforming the budget process.—The American people deserve, and our Government requires, a more orderly and more rational budget process.

The preparation of this budget, like those of other recent years, has been handicapped by the delays in enactment of appropriations for the fiscal year which began last July 1. *There is still one 1972 appropriations bill which has not been enacted even as I write this, 12 months after I submitted the 1972 budget.* Moreover, the uncertainties and hesitation caused by these delays in congressional action have hindered the orderly management of the Government.

There has been excessive attention to details and virtually no attention paid to overall totals or the effect of individual irresponsible acts of spending on the budget totals. Any procedural reform that encouraged the Congress to be aware of the overall effect of their individual actions would have substantial benefits for us all.

There have been delays of many months in the enactment of regular appropriation bills, and there have also been periods in which temporary appropriations have been permitted to expire, leaving some agencies with no authority to continue operations.

Changes in the way the Congress con-

ducts its business are its business. But, in the matter of the budget process, the results of the present methods have seriously affected how well I can administer and manage the executive branch.

THE LONGER VIEW

In 1976, our Nation will celebrate its 200th birthday. Three basic questions must be answered as we look toward a proper celebration of our bicentennial.

- How can we best achieve our great national goals?
- What role should the Federal Government have in this effort?
- How can we best rededicate ourselves to the idea of personal freedom?

In considering these questions, we cannot ignore the hard fact that the increase in uncommitted resources between now and 1976 will be small in comparison with the magnitude of the tasks, forcing us to make difficult decisions about priorities.

My basic preferences in allocating our national resources are clear.

First, I believe that to avoid permanent inflation and waste we should assure that we count the costs before we make spending decisions. We can do that by adhering to the principle that spending must not exceed the level at which the budget would be balanced if the economy were at full employment.

Second, I believe that an increasing share of our national resources must be returned to private citizens and State and local governments to enable them—rather than the Federal Government—to meet individual and community needs.

Responsible budgeting.—The first principle—the full employment budget principle—imposes a necessary discipline on Federal spending.

Last year, the budget margin projected for 1976—the potential Federal budget surplus, assuming full employment and only the programs and tax structure in existence or proposed then (1971)—was \$30 billion. Actions taken in the last 12 months and those proposed in this budget will reduce that margin to only \$5 billion. This margin is less than \$25 for each man, woman, and child in the expected 1976 population, and is less than 1.6% of projected 1976 budget receipts. And yet, it must be sufficient to cover the 1976 costs of all new proposals not included in this budget.

The moral is clear. A strong fiscal discipline will be necessary in the years ahead if we are to preserve the buying power of the dollar. New spending programs must be evaluated against the most stringent of standards: *do they have enough merit to warrant increases in taxes or elimination of existing programs?*

This Administration has measured its proposals against this standard. I have made the hard choices necessary to assure that they can be financed within a full-employment budget policy.

I urge the Congress to engage in a similar self-discipline in making the hard choices that will be required during the next few years. This Administration will vigorously oppose irresponsible and short-sighted spending proposals that would commit large sums of Federal

money to schemes that are politically attractive but would endanger an inflation-free prosperity.

CONCLUSION

There will be those who contend that in this budget their favorite programs are not financed, or are not financed as much as they want them to be.

They will be absolutely right.

Government expenses increase each year because special interest groups, representing only those who stand to benefit from their program, persuade decision-makers that more resources are needed for those programs without regard to the effect on the total budget. The cost is multiplied by geometric progression when this tactic is repeated for literally hundreds of programs. Seldom do any of these groups recommend additional taxes to finance their proposed spending.

Then inflationary factors, frequently induced by the large total volume of spending resulting from individual decisions made without consideration of the larger picture, force the cost of these programs upward. At the same time the special constituency benefiting from the program is enlarged and strengthened, its demands are correspondingly increased, and the cycle continues to feed upon itself.

Taken together, what is good for all the special interests is bad for the public interest. Our strength is in our ability to act as one nation, not as a conglomerate of warring and greedy factions.

For this reason my 1973 budget, large as it is, will not be large enough to satisfy many. However, I hope the American people will make their desire for less pervasive government known in unmistakable terms to their elected representatives. It is essential to preserve the private enterprise system, with its competitive spirit and its work ethic, which has done so much to inspire the independent and help the dependent and which has made this Nation the economic example to the rest of the world.

That system has enabled us to secure, for our people, a far higher standard of living than any experienced, or even envisioned, by the rest of the civilized world.

I do not wish it said of my Administration that we furthered or encouraged the process of discarding that heritage. So, I have emphasized fiscal responsibility and downward pressure on Federal expenditures, rather than simply accept all requests of all special groups and hope that the inevitable need for new taxes could be delayed as long as possible.

I am not averse to a day of reckoning, but when it comes, I want it to be said that this Administration foresaw the danger, held spending to amounts that could be paid from full-employment revenues, and took all steps possible to reduce the need for raising taxes so that the Federal Government plays a smaller, not a larger, role in the life of each of us. In this way, every citizen will have a larger share of the fruits of his labor to spend the way he or she freely chooses.

RICHARD NIXON.

JANUARY 24, 1972.

THE BUDGET MESSAGE FOR 1973

The SPEAKER. Under previous order of the House, the gentleman from Texas (Mr. MAHON) is recognized for 30 minutes.

Mr. MAHON. Mr. Speaker, I wish to commend the President of the United States for getting his budget message to the Congress in such a timely fashion. It is a notable performance.

As you know, last year many of the legislative actions were not taken until late in the calendar year. The annual authorization for the defense bill, for example, did not come through early. And it was very late in the year before we had an opportunity to present the appropriation bill to the Congress and pass it. We have still not completed action on the foreign assistance appropriation bill. So I think that the President and Mr. SHULTZ and their staff people did a Herculean job to get this budget before us this early in the new session.

WHOPPING DEFICITS

Mr. Speaker, the budget message does a masterful job of putting a rosy image on what in my judgment is a near-disastrous fiscal situation. We have been trying to buy ourselves out of inflation and huge deficits, but these efforts have failed. Inflation is receding a bit, but whopping deficits have increased markedly from year to year, and a whopping deficit is again projected for fiscal year 1973. As the fiscal year 1973 proceeds, it may very likely be much greater.

No one should believe that with whopping deficits in the \$20 to \$30 to \$40 billion range that we can really win the fight against inflation adequately or stabilize the economy. This Government will have to borrow about \$44 billion in the current fiscal year 1972—from the highway fund, the social security fund, and other trust funds, and from the private sector—mostly from the private sector.

When the Government goes to the money market and borrows in the magnitude of \$38 billion to \$40 billion from the private sector, this inevitably will have a marked effect upon the economy of our country. Among other things, such borrowing will put pressure on interest rates. Such a course, is of course, highly inflationary and will tend to create further economic dislocations.

DEFICITS ARE A NATIONAL PROBLEM

Let me say that I shall not speak in a partisan manner. No one administration is responsible for our plight. The administration and the Congress must

share the responsibility for the dangerous fiscal situation which confronts the country. The point really I make today, Mr. Speaker, is that we are at the crossroads as a nation. As I see it, our way of life is threatened.

A further point I make—and we have made it here on many occasions—is that democracy will collapse without restraint, and this Government in both the executive and the legislative branches has not been using sufficient fiscal restraint.

ORIGINAL BUDGETS ARE CHARACTERISTICALLY OPTIMISTIC

I think we all would agree that all Presidents, in presenting a budget and budget message, look at the world through rose-colored glasses and seek to be as optimistic as possible. It is easy to document that statement.

VARIATION FROM ORIGINAL 1972 BUDGET

The budget for 1972, submitted a year ago, projected happily a unified budget deficit of only \$11 billion, a Federal funds deficit of about \$23 billion, and a razor-thin full employment budget in surplus by one-tenth of a billion dollars. Those were the original projections.

But what do we see now? Now, it is reestimated that the unified budget deficit for the current fiscal year 1972 is up to \$38.8 billion, and the year is not yet closed. The Federal funds deficit for fiscal year 1972 is now reestimated at \$44.7 billion. The full employment budget for fiscal year 1972—which it was said in the message a year ago should not be exceeded except under the most urgent conditions—is now estimated to be in deficit by about \$8 billion.

This tends to make a black Monday out of January 24, 1972.

May I add, Mr. Speaker, the swing from a projected unified budget deficit of \$11.6 billion to a current estimate of \$38.8 billion—and with 6 months of the fiscal year yet to go before the books close—constitutes one of the most severe cases of budget erosion in recent history.

What went wrong?

The \$27.2 billion swing in the unified budget deficit for fiscal year 1972 results from an increase of about \$7.4 billion in outlays and a decrease of about \$19.8 billion in anticipated receipts.

The massive decrease in revenues is largely attributable to lackluster growth of the GNP compared to original projections. Current estimates put the effect of that at about \$12.9 billion. Tax rate changes, including a tax and base increase for social security, account for the other \$6.7 billion revenue loss.

VARIATIONS FROM ORIGINAL BUDGET PROJECTIONS

[In billions of dollars]

Fiscal year	Budget receipts			Budget expenditures			Surplus or deficit		
	Original	Actual	Swing	Original	Actual	Swing	Original	Actual	Swing
Administrative budget:									
1955	62.5	60.2	-2.3	65.4	64.4	-1.0	-2.9	-4.2	-1.3
1956	59.7	57.8	-1.9	62.1	66.2	+4.1	-2.4	+1.6	+4.0
1957	65.0	70.6	+5.6	64.6	69.0	+4.4	-4.4	+1.6	+1.2
1958	73.1	68.6	-4.5	71.2	71.4	-.2	+1.8	-2.8	-4.6
1959	74.0	67.9	-6.1	73.6	80.3	+6.7	+1.5	-12.4	-12.9
1960	76.4	77.8	+1.4	76.3	76.5	-.2	+1.1	+1.2	+1.1
1961	83.3	77.7	-5.6	79.1	81.5	+2.4	+4.2	-3.9	-8.1
1962	82.3	81.4	-.9	80.9	87.8	+6.9	+1.5	-6.4	-7.9
1963	93.0	86.4	-6.6	92.5	92.6	-.1	+0.5	-6.3	-6.8
1964	86.9	89.5	+2.6	98.8	97.7	-1.1	-11.9	-8.2	+3.7
1965	93.0	93.1	+0.1	97.9	96.5	-1.4	-4.9	-3.4	+1.5

The \$7.4 billion increase in outlays over those originally projected is accounted for almost entirely by a \$6 billion increase in the so-called uncontrollable programs of the budget.

EFFECT OF CONGRESSIONAL ACTION AND INACTION LAST SESSION ON 1972 OUTLAYS

Congress played no part in adding net additional outlays to the budget estimates for 1972, according to the best estimates available. For a detailed description of Congress' role I refer you to a comprehensive statement I made on the subject contained in the CONGRESSIONAL RECORD for January 20, page 605. For now, I would just summarize by saying that the net effect of appropriations actions was to reduce outlays for 1972 by about \$744 million. Actions in nonappropriation bills added about \$3.8 billion in outlays, but that was largely offset by inaction or deferral of action on legislative proposals in the budget which amounted to a reduction of \$3.1 billion in outlays. All in all, the result in terms of outlays relating to congressional action and inactions last session on the 1972 budget, according to the best estimates available, was a reduction of about \$73 million. It was about a standoff.

TENUOUS NATURE OF ORIGINAL BUDGET PROJECTIONS

The budget—all budgets—as submitted by the President comprises a package of plans and projections. It is grounded on assumptions subject to contingencies and uncertainties. How will Congress react to his proposals? How will the economy perform? What turn will international events take in the next 18 months?

The President assesses the situation and presents the legislative and budgetary proposals he deems are in the best interests of the Nation. Obviously the situation can and often does change to some extent. Congress may concur with his assessment of the situation, but disagree as to remedies. So it is for a host of reasons that original budget projections are often wide of their mark; they are, for understandable reasons, to be taken with huge grains of salt.

It is also a fact of life that budgets, all budgets—from those based on a 50-cent-per-week allowance to those based on a trillion-dollar-per-year economy, are characteristically—almost uniformly—optimistic.

I include for the RECORD at this point an informative tabulation of variations between original budget projections and final budget results going back over a number of years:

Fiscal year	Budget receipts			Budget expenditures			Surplus or deficit		
	Original	Actual	Swing	Original	Actual	Swing	Original	Actual	Swing
Administrative budget—Continued									
1966	94.4	104.7	+10.3	99.7	107.0	+7.3	-5.3	-2.3	+3.0
1967	111.0	115.8	+4.8	112.8	125.7	+12.9	-1.8	-9.9	-8.3
1968	126.9	114.7	-12.2	135.0	143.1	+8.1	-8.1	-28.4	-20.1
Unified budget:									
1969	178.1	187.8	+9.7	186.1	184.6	-1.5	-8.0	+3.2	+11.2
1970	198.7	193.7	-5.0	195.3	196.6	+1.3	+3.4	-2.8	-6.3
1971	202.1	188.4	-13.7	200.8	211.4	+10.6	+1.3	-23.0	-24.3
1972 estimate	217.6	197.8	-19.8	229.2	236.6	+7.4	-11.6	-38.8	-27.2
1973 estimate	220.8			246.3			-25.5		

¹ Represents Federal Funds portion of unified budget concept totals.

² Estimate in 1973 budget.

DIFFERING BUDGET CONCEPTS

At this point, for the benefit of those who do not work closely with the Federal budget—and many do not—I should present a definition of terms. The difference between the unified budget and the Federal funds budget is explained as follows: With the unified budget we take into consideration all income; we take into consideration billions of dollars from trust funds—highway and social security, and otherwise; we take into consideration all revenues, revenue from corporation taxes, and individual income taxes. We take into account the expenditures from all those accounts. That is the basis of the unified budget.

The unified budget tends to create something of an illusion of comfort, because for several years we have been collecting for social security purposes and for the highway fund and other trust funds about \$5 to \$10 billion more than we have been spending from the trust funds. So these surpluses are borrowed to pay the regular expenses of the Government. The law requires that surpluses be provided from the trust funds, but bear in mind that these funds must be returned to the accounts to which they are dedicated, and we must pay interest on those sums. But, under the unified budget, the budget message does not take this into account and does not reflect this borrowing as a part of the budget deficit.

The real budget, as most of us would see it, rests on this basis: How much money do we collect to operate the Government, generally speaking, outside of social security and other trust funds, and how much do we spend for general governmental purposes?

And what is the situation on this Federal fund basis for this year? The situation is that the budget which has been presented today projects that for the

current fiscal year 1972, we will spend \$44.7 billion more than we have in hand or in sight. For fiscal 1973, the Federal funds deficit is projected at \$36.2 billion. Of course, we will borrow about \$6 billion this year and next year we will borrow about \$10.7 billion, it is estimated, from the trust funds.

Then, there is the so-called full employment budget. The unified budget has gotten to be so dismal, and the Federal funds budget so dismal, that the basic budget guideline has been shifted to a full employment budget; and now, even the full employment budget is in a pretty dismal condition, and the question arises: What will be the next method or concept with which to "sugar coat" the frightfully serious and dangerous fiscal situation which confronts the country?

The full employment budget provides for a very soothing and comforting approach to the problem of red-ink spending. What one does is to play like one has full employment and that the Government is collecting the revenue which would flow from full employment. Then one spends the funds, which of course one does not have, so one has to borrow them for the operation of the Government. This strange strategem tends to lull the Government and the citizen—but I hope not the Congress—into complacency, tending to create more inflation and further jeopardize the dollar at home and abroad.

Alice could afford to live in Wonderland. Not too much was at stake. But I ask, can we continue to afford to live in Wonderland?

The full employment budget was relied on in last year's budget as the basic budget yardstick for total spending. That was the basis of the budget; the unified budget and the Federal funds budget were more or less sort of downplayed.

The full employment budget was relied upon last year as the basic policy guideline for setting the upper limit on spending. And what did it do for us? It helped bring about a projected deficit for this fiscal year, 1972, of \$44.7 billion in Federal funds, and \$8 billion under the "make believe" full employment basis. Even the full employment budget is now in deficit. All concepts show deficits.

DEFICITS OVER THE YEARS

Now, deficits were not invented by this administration. Other administrations have had them more often than not. But no other administration has sought to "sugar coat" them with the full employment budget approach.

Further, let me repeat that the responsibility for budget deficits must usually be borne by both the administration and the Congress.

In the past 43 years, since 1930, counting the 1973 budget, no matter what concept is used, we have had 32 deficits; on the Federal funds basis, formerly called the administrative budget we have had 37 deficits in the last 43 years including the one today for fiscal 1973.

Mr. Speaker, budget deficits have not only persisted but they are getting bigger. The total of Federal funds budget deficits for the 4 fiscal years of 1970-73, on the basis of today's budget, comes to about \$123.9 billion. In other words, that is for the 4 years, beginning with fiscal year 1970 and including 1971, 1972, and 1973 on the basis of today's budget. Now listen to this: That figure is larger than the total of all comparable deficits since World War II.

Mr. Speaker, I include an illuminating table summarizing the budget surplus and deficit situation since fiscal 1967. It shows something of the quickening pace of going deeper in debt:

THE BUDGET SURPLUS AND DEFICIT SITUATION, FISCAL YEARS 1968-73

[In millions of dollars, may not add due to rounding]

	Federal funds	Trust funds	Total of the 2	Less intragovernmental transactions that wash out	Net totals
THE YEARS 1968 AND 1969					
Fiscal 1968:					
Budget receipts.....	114,726	44,716	159,442	-5,771	153,671
Budget outlays.....	143,105	41,499	184,604	-5,771	178,833
Surplus (+) or deficit (-).....	-28,379	+3,217	-25,162		-25,161
Fiscal 1969:					
Budget receipts.....	143,321	52,009	195,330	-7,547	187,784
Budget outlays.....	148,811	43,284	192,095	-7,547	184,548
Surplus (+) or deficit (-).....	-5,490	+8,725	+3,235		+3,236

	Federal funds	Trust funds	Total of the 2	Less intragovernmental transactions that wash out	Net totals
THE YEARS 1970-73					
Fiscal 1970:					
Budget receipts.....	143,158	59,362	202,520	-8,778	193,743
Budget outlays.....	156,301	49,065	205,366	-8,778	196,588
Surplus (+) or deficit (-).....	-13,143	+10,297	-2,846		-2,845
Fiscal 1971:					
Budget receipts.....	133,785	66,193	199,978	-11,586	188,392
Budget outlays.....	163,651	59,361	223,012	-11,586	211,425
Surplus (+) or deficit (-).....	-29,866	+6,832	-23,034		-23,033

THE BUDGET SURPLUS AND DEFICIT SITUATION, FISCAL YEARS 1968-73—Continued

[In millions of dollars, may not add due to rounding]

	Federal funds	Trust funds	Total of the 2	Less intragovernmental transactions that wash out	Net totals		Federal funds	Trust funds	Total of the 2	Less intragovernmental transactions that wash out	Net totals
Fiscal 1972 (Rev. est. Jan. 1972):						Fiscal 1973 (Orig. budget, Jan. 1972):					
Budget receipts (est.).....	137,788	73,163	210,951	-13,124	197,827	Budget receipts (est.).....	150,617	83,214	233,831	-13,046	220,785
Budget outlays (est.).....	182,519	67,215	249,734	-13,124	236,610	Budget outlays (est.).....	186,784	72,519	259,303	-13,046	246,257
Surplus (+) or deficit (-), est.....	-44,731	+5,948	-38,783		-38,783	Surplus (+) or deficit (-) est.....	-36,167	+10,695	-25,472		-25,472
						Surplus (+) or deficit (-), the 4 years 1970-73, on above basis.....	-123,907	+33,772	-90,135		-90,133

Note: Prepared Jan. 24, 1972, in the House Committee on Appropriations.

The total Federal funds deficit for the first 4 years of the 1970's totaled just a shade under the comparable combined deficit total for the first 4 years of every decade since the beginning of the Republic. However, we have many months to go before the books are closed on the mushrooming deficits estimated for fiscal years 1972 and 1973.

NEED FOR GREATER RESTRAINT

At this point I think I should appropriately say as chairman of the Committee on Appropriations that I feel that the committee and the Congress must expeditiously and thoroughly examine the budget and work together with the administration in an effort to hold the line on spending as well as possible and seek ways and means of safely making reductions in appropriations and in spending. This is of the utmost importance to the Nation, and I pledge our very best efforts in that direction.

We, of course, will not agree among ourselves or with the administration in every instance as to the priorities, but this should not prevent our doing a workmanlike job of trying to save the country from fiscal collapse.

THE NEED FOR ADDITIONAL TAX REVENUES

Mr. Speaker, no candidate for President is probably going to go before the voters and advocate new taxes. I doubt that that will happen. But, as certainly as I stand on the floor of this House today, when the election is over and when an administration takes over in January of 1973 we will be standing at the fiscal crossroads. Whoever is elected President, whether he be Democrat or Republican or independent, will be faced with a critical situation which can no longer be sidestepped. I say that in the light of the fact that the best estimate this current year is for a Federal funds deficit of \$44.7 billion. It may go up to \$50 billion; we cannot tell. The deficit for the following year might go even higher. And the following year even higher. That is the way it is moving. No Congress and no President will permit a budget to just keep on going deeper in the red because we are certainly reaching the upper limits. So the hour of decision will arrive in 1973, in my opinion, and actions will have to be taken to raise additional revenues.

What I am trying to say is that we have to cut spending rather dramatically

or else we have to raise additional revenues. That to me seems absolutely inevitable. The Congress must bear in mind and the people must understand this, because surely it is inevitable. I want therefore to warn of the situation which is confronting us.

PREMISES AND RECOMMENDATIONS FOR MORE SPENDING

Can we drastically cut spending? Well, we have provided \$1.5 billion for an accelerated program in the cancer authorization bill.

The President said that the space shuttle must go forward, and there is no doubt that it would provide a lot of jobs. There is no doubt about that.

Then there is revenue sharing, a costly proposal. Another expensive proposal is welfare reform. The general tendency as we read the past and the present is that we are going to go upward and not downward in spending. What we need to try to do is at least hold the line and not go upward too rapidly. But the trend through the years has been up, up, up.

This budget today projects an increase of \$9.7 billion in spending in fiscal year 1973 over the reestimated total for fiscal year 1972.

And in today's budget, the request for additional new obligatory budget authority for fiscal 1973 total about \$20 billion more than the currently estimated total for fiscal 1972. Increased authority to obligate signifies higher expenditures in the years ahead.

The budget, the authorizations, the appropriations, and thus spending trends are upward, upward, upward. With a shortfall in revenues, the crisis is upon us now. Perhaps we can postpone the facing of it in toto until next year, but that is where we are. It is a very disturbing situation. That is the reason that I take this opportunity to make these remarks to you today.

COST OF LEGISLATIVE PROPOSALS IN THE 1973 BUDGET

A main fact of life is that the American people seem to want the public goods and services that government produces. A good indicator of this fact are the legislative initiatives that every President presents when he submits his budget and the initiatives that the Congress itself generates annually quite independent from the President's proposals.

This year, as a result of a requirement in the Legislative Reorganization Act of 1970, the budget includes 5-year projections of the cost of the major new legislative initiatives and expansions of programs that are included in the budget for fiscal year 1973. These proposals will be before various legislative committees of the House. Of course, these estimates for the years ahead can only be rough approximations. Five-year projections, by their very nature, are subject to many contingencies, loaded with uncertainties.

Nevertheless, even a rough projection gives us pause to think. In 5 years the annual expenditure outlay effect of legislative proposals in today's 1973 budget is estimated to be roughly \$33 billion. Table 16 of today's budget has the details.

Mr. Speaker, I ask, Is it in the cards for outlays to diminish?

THE PROPOSAL FOR AN OVERALL SPENDING CEILING

Now, the President this morning has announced that he is going to ask Congress for an expenditure ceiling. We have had an expenditure ceiling for several years. I have advocated an expenditure ceiling for several years, although I realize that the best way to control and reduce spending is in the authorization and appropriation bills. I sponsored such a ceiling in fiscal years 1970 and 1971. We also had a ceiling in fiscal year 1969.

The President is apparently going to ask for an expenditure ceiling for fiscal 1973. I applaud the objective of a ceiling such as we had in previous years although it was not as effective as we hoped it would be in controlling expenditures.

We have no such ceiling for fiscal 1972. With the President withholding the expenditure of certain funds which Congress had appropriated, there was considerable controversy about the matter and the climate was not sympathetic to an expenditure ceiling in the last session.

Now, the President is asking us to fix an overall expenditure ceiling for the forthcoming fiscal year 1973. I do not know what we are going to do about it. I have not had an opportunity to confer with the leadership on either side of the aisle or with my colleagues on the committee or otherwise. However, this is a matter with which we must wrestle.

I personally would like to have an expenditure ceiling again imposed. I realize the difficulties involved. We can fix an expenditure ceiling on the Executive

by not appropriating the money, but we cannot, somehow, very easily fix an expenditure ceiling on Congress because whatever we enact today we can repeal or amend tomorrow. However, that is one of the problems with which we wrestle.

NEED FOR EXPEDITIOUS HANDLING OF AUTHORIZATION BILLS

Mr. Speaker, for several years we have had a separate appropriation bill for education in order to secure its early enactment, but much of the education budget for fiscal 1973 is going to have to be authorized before we can bring in the appropriation bill. If we do not get the authorizations in a timely fashion, we may have to abandon this helpful forward step.

Mr. Speaker, it seems to me that the House and the Senate ought to work as rapidly as reasonably possible with our authorization bills, especially so that we can come along as rapidly as we can with the appropriation bills. The country is looking at us and the country has a right to expect performance and to expect that appropriation bills not be delayed until November or December for the fiscal year which begins many months earlier. I just wanted to make note of this matter because late authorizations have been a problem for some years, and this year there is a special need to move with greater expedition.

THE PROSPECT AND NEED FOR ADDITIONAL TAX REVENUES

I would like to turn to page 37 of the budget message and revert back for a moment to this question of additional revenues which I think all of us realize we have got to have if we are to get away from these intolerable deficits. We have been spending more and more and more, but the real problem in addition to that is that we have been cutting taxes. We cannot, in my opinion, have spiraling spending and at the same time cut revenues and expect to get anything but unacceptable deficits. I know that the economists and others talk about cutting taxes to stimulate the economy, and there is something to that. But, it rarely works out as theorized.

The President I think clearly recognizes the present gap between spending trends and revenues on page 37 of his message, and I shall read it at this point. The first sentence is not relevant—I am referring to the penultimate paragraph of the President's message of today:

I do not wish it said of my Administration that we furthered or encouraged the process of discarding that heritage—

And, here is what I want to read—

So, I have emphasized fiscal responsibility and downward pressure on Federal expenditures, rather than simply accept all requests of all special groups and hope that the inevitable need for new taxes could be delayed as long as possible.

What the President is saying is that new taxes are inevitable, and he wants to delay them as long as possible. What I am saying is that I do not see how it can be delayed beyond 1973.

It is easier to create deficits than it is to try to hold the line. It is easier to be for more appropriations and against more taxes than it is to hold the line.

In the last session we cut revenues in the tax bill over a 3-year period by about \$15 billion, and in prior tax bills, including the 1969 bill, we cut taxes further.

DEFICIT SPENDING

So, Mr. Speaker, deficit spending is inevitable at the moment. I am not saying that a balanced budget is immediately attainable. I am saying that with prolonged deficit spending the chickens eventually come home to roost.

On page 8 of today's budget message it is said:

Deficit spending at this time, like temporary wage and price controls, is strong but necessary medicine.

Well, holding the line and restraining spending and taxing ourselves for what we demand and doing some sacrificing is strong medicine. I would generally characterize whopping deficit spending as soothing syrup. It is not hard to appropriate and spend money you do not have as long as you can borrow it.

We have taken this soothing syrup entirely too long, and we need to take the strong medicine of self-discipline, as I see it.

Mr. Speaker, how much time do I have remaining?

The SPEAKER. The gentleman has 3 minutes remaining.

Mr. MAHON. Mr. Speaker, that about concluded what I wanted to say. We all realize that our problems are very complex and difficult.

CONGRESSIONAL ACTIONS ON THE FISCAL YEAR 1972 BUDGET

Mr. GIBBONS. Mr. Speaker, will the gentleman yield so that I may ask one question about this year's budget?

(On request of Mr. GROSS, and by unanimous consent, Mr. MAHON was allowed to proceed for 5 additional minutes.)

Mr. MAHON. Mr. Speaker, I thank the gentleman from Iowa for the additional time.

Mr. GIBBONS. Mr. Speaker, if the gentleman will yield, would it be fair to say that in this projected Federal funds deficit of \$44.7 billion for the current fiscal year 1972 that the Congress actually authorized and appropriated something less than the President requested in his fiscal 1972 budget?

Mr. MAHON. The Congress, for fiscal year 1972, has thus far appropriated, in the appropriation bills, about \$2.2 billion less than was requested by the President, so we cannot lay at our door this matter of over appropriations during this period. This \$2.2 billion is, of course, new budget authority.

I would add that the \$44.7 billion deficit figure which you cite relates to outlays during fiscal year 1972. According to our best estimate, the net effect of congressional action during the last session, including actions on appropriations bills, actions on nonappropriation bills, and inaction on nonappropriation legislative proposals, amounted to a reduction of about \$73 million. In effect, it was about a standoff.

The biggest single factor in the deepened deficit picture this year, fiscal 1972, as compared to the original 1972 budget, is the shortfall in revenues. Expendi-

tures—outlay—are up several billion over the original budget projection, but the major single factor is the revenue shortfall.

Mr. CEDERBERG. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I yield to the gentleman from Michigan.

Mr. CEDERBERG. Mr. Speaker, I would like to ask the chairman, the gentleman from Texas (Mr. MAHON), if he would include in his remarks in the RECORD a table indicating where we did reduce spending last year.

I think you will find that in some cases that the reductions which were made in appropriations were not accompanied by reductions in spending because the actual outlays are not scheduled within this fiscal year. We increased the budget for some programs which call for immediate spending within the fiscal year, and reduced appropriations in certain areas where the spending will take place far beyond the end of this fiscal year. The reduction in appropriations sounds good, but it does not translate into commensurate spending reductions in this year. We did not have a big impact insofar as reducing expenditures is concerned.

Mr. MAHON. I thank the gentleman. I will include at the end of my remarks a full statement on the matter. It will show that in respect to spending projections for the fiscal year 1972, congressional actions and inactions amounted to about a standoff—slightly below the President's budget estimates, but essentially a standoff.

I should say that one of the reasons why we wound up at about a standoff is that we did not embrace, in the last session, the budget request for revenue sharing. If we had passed the revenue sharing bill, as recommended by the administration and as urged upon us again in this budget message, we would have been above the overall budget recommendations for spending.

I would like to state that I am happy to see so many Members on the floor demonstrating deep interest in the problem which is before us.

Mr. SIKES. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I yield to the gentleman from Florida.

Mr. SIKES. Mr. Speaker, first let me congratulate my able and distinguished friend, the chairman of the Committee on Appropriations for the very sound analysis of the problems confronting us with reference to the budget.

It is important that the Congress understand the enormity of the task that is now before us. It is important that the Congress study the budget and study the message given to us by the distinguished gentleman from Texas and resolve to try to face up to the difficult responsibility of putting our fiscal house in order.

I must add this word of concern. The Congress passes many authorization bills. They touch on a lot of subjects and they frequently provide new programs which necessitate funding before they can be implemented. The responsibility of a close watch on appropriations actions must also be tempered by an equally

close watch on authorization actions. When the Congress authorizes a new program it frequently is said this is only an authorization, there is not any money involved. Sometimes this means bills authorizing legislation are passed without the detailed scrutiny which they should have. But once an authorization is completed almost inevitably a request will be forthcoming in a short time to the Congress and to the Committee on Appropriations for funds. Then the statement is made, "Well, it is authorized and we have to provide the money for the program." One action contributes to the other. It all adds up to a mounting deficit that we must get under control.

Mr. MAHON. Let me say this. The gentleman from Michigan (Mr. CEDERBERG) made reference to the nature of our cuts. I think we need to be completely objective about these matters.

One reason why we were under the President's request in the appropriation bills last year was the cuts that were made in foreign aid and the cuts that were made in defense were larger than certain offsetting increases in domestic programs.

With respect to defense reductions, it was felt they were not sufficiently deep to jeopardize our military strength. They were designed to some considerable extent to improve efficiency. I for one continue to fully support a strong defense program.

We went over the budget on some spending programs funded through non-appropriation bills. We increased, for instance, social security benefits more than had been requested. But these increases in nonappropriation bills were offset by inaction or deferral of certain nonappropriation legislative proposals. Revenue sharing and welfare reform are prime examples.

The expenditures that are inherent in the Department of Health, Education, and Welfare appropriations will be greater this coming year than those for defense, even though the defense budget is increased in the budget message of today.

In these social fields where there is so much demand and so much pressure there has been great difficulty in holding the line.

CONSIDERING THE WHOLE BUDGET PICTURE

It is most important that we consider the whole appropriation and spending picture and all related programs.

The President in his budget message makes a very good point, which has been made many times by the President and by Members of the Congress. The point is that the Congress as well as the Executive needs to give consideration to the whole budget picture. Just to look through a small hole at one little segment and respond to demands for particularly popular programs will not do.

This year we need to do the best that we have ever done in the history of this Congress in considering the whole budget.

On Thursday and Friday of this week the Committee on Appropriations will begin consideration of the budget with an overall hearing. We will have as key witnesses the Secretary of the Treasury

or his Under Secretary; Dr. George Shultz, the Director of the Office of Management and Budget; and Dr. Stein, the Chairman of the Council of Economic Advisers to the President.

What I mean to say is that the Committee on Appropriations and the Congress itself need to be constantly alert to the overall picture. We must remember just because a particular program is good it does not therefore follow that we should embrace it. That is only one of the factors to be considered. An overriding question must be, do we have the money in hand or in sight to finance it?

NEED FOR ADDITIONAL TAX REVENUES

Mr. WYMAN. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I yield to the gentleman from New Hampshire.

Mr. WYMAN. I thank the gentleman for yielding. I share the concern of the distinguished chairman of the Appropriations Committee about the Nation's deteriorating fiscal situation. Continuing huge deficits must be stopped. If the executive branch will not do this it is up to the Congress to do so.

This principle applies without regard to political party. It must. It is of the essence of irresponsibility in government to deliberately overspend our revenues, yet this is what is being done today and proposed for fiscal 1973.

In 1968 one of the big arguments for a change in administration was that enormous deficits had been incurred through overspending by prior Democrat administrations. With the advent of a change in administration I, for one at least, construed this as a mandate for fiscal responsibility.

It is fiscally irresponsible to continue massive deficits with the national debt in excess of \$400 billion and the fires of inflation licking at the foundations of the Union. The danger to the purchasing power of the dollars of every American citizen, be he working man or woman or retired, is patent. Continuing deficits is abdication of responsibility to protect our people.

Our distinguished chairman says this can wait until January of 1973. He hints broadly that whomever is inaugurated next January will have to bite the bullet in the fiscal sense at that time.

Perhaps we must wait until 1973 but if so it will be because of political reality rather than any lack of genuine urgency at this moment.

The political reality, of course, is that no one wants to propose increasing taxes in an election year. Yet, the hard truth is that if we are to increase our spending we must increase our revenue to match it or everything can bust wide open from Wall Street to the FDIC. Foreign creditors are watching. Financial experts in many lands, including our own, are simply aghast at the prospect of more than \$100 billion worth of added debt in just the last 4 years.

A value-added tax at the national level, to be returned to the States and local communities in partial reduction of the onerous burdens of local property taxes, is one alternative. Another is to increase certain aspects of corporate and personal income taxes. Still another is to add to excises or conduct a national lottery,

such as I have proposed in H.R. 2386. Whatever the ultimate form, it is of the essence of the responsible fiscal responsibility to which our Chairman has addressed himself today, that the Appropriations Committee and the Congress see to it that the revenues of this country at least equal its spending.

The problem that we have experienced in recent years has been due in part to the fact that because appropriations bills have been delayed past the beginning of the fiscal year—July 1—much of the Government has been operated under continuing resolutions. This delay in passing appropriations has been attributable in large measure to the failure of the authorizing committees to complete their hearings and pass necessary authorizing legislation prior to the beginning of the fiscal year.

I have introduced a resolution—House Resolution 557, 91st Congress—to provide for a change in the House rules to enable appropriations bills to be brought to the floor of the House and acted on after June 1 without being subject to a point of order that they lack a prior adopted authorization bill.

MORE EXPEDITIOUS HANDLING OF AUTHORIZATIONS

I would like to ask the chairman this question: As the chairman knows, some time ago I introduced a resolution—House Resolution 557, 91st Congress—which would change the rules of the House to enable appropriation bills, after June 1 of each year, to come to the floor of the House without being subject to a point of order for lack of prior authorization. Is there anything being done about that?

Mr. MAHON. I am sure, as has been true in the past, that the leadership will confer with all committee chairmen and try to work out some approach to that matter. If we could bring in appropriation bills, the regular annual appropriation bills even without authorization after June 1 or June 15, we would be off and running, and this Congress could adjourn and Members could spend more time in their home districts.

Mr. WYMAN. Does not the gentleman think that 5 months is sufficient time for authorization bills to be heard?

Mr. MAHON. It would seem so.

THE "FULL FUNDING" CRY

Mr. CASEY of Texas. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I yield to the gentleman from Texas.

Mr. CASEY of Texas. I appreciate the analysis which the distinguished chairman has made of this budget.

The SPEAKER. The time of the gentleman from Texas has expired.

(On request of Mr. CEDERBERG, and by unanimous consent, Mr. MAHON was allowed to proceed for 5 additional minutes.)

Mr. MAHON. I yield further to the gentleman from Texas.

Mr. CASEY of Texas. I appreciate also his alerting us to the shadow that is being cast over our fiscal responsibility, not only now, but in the dangers that lie ahead of us.

One of the things that I have noted, and I know the chairman has noted and

called to the attention of the House, is that heretofore authorization bills have been guidelines as to a maximum amount that might be considered for programs, but recently there has been an urgency for full funding on programs that are hot at the moment and which catch the public's imagination. I think we as Members of Congress and the public itself should be alerted to these so-called full funding drives that we have seen on everything that comes along and which is really going to wreck us if we yield.

Mr. MAHON. I appreciate the gentleman's making that statement, because I remember when we had the supplemental appropriation bill before us late last session. The Senate had increased the amount by about \$700 million over the budget.

In conference we were successful in sharply reducing this sum but we were still far above the original House figure and the budget figure. We were upbraided and lambasted on the floor of the House by those who pointed a finger at us and said in effect: Upon what meat do these our Caesars feed, that they have grown so great? Why didn't the committee appropriate the full authorized amount?

Mr. CASEY of Texas. Full funding.

Mr. MAHON. Yes. Full funding.

Mr. CASEY of Texas. What the people back home do not realize is that if we full-funded everything that has been authorized, we would not be able to own this Capitol. Someone else would own it.

Mr. WHITTEN. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I yield to the gentleman from Mississippi.

TIMELINESS OF APPROPRIATIONS BILLS

Mr. WHITTEN. Mr. Speaker, in the first place, I congratulate the chairman on his fine presentation of a very serious matter.

I would like to call attention to one fact and that is we do have to have authorizations for appropriation bills, but there are two ways to authorize. One is to have a legislative committee bring out a bill authorizing appropriations and have it passed by the House, by the Senate, and then signed by the President. The other way is for the House to approve a waiver of its rule and permit the consideration of an appropriation that is not authorized. Some 3 or 4 years ago the Committee on Appropriations, at the conclusion of a hectic session, I believe unanimously—without any dissent that I heard—agreed that we could proceed with and finish our hearings, and then advise the leadership that we had accomplished our job. It would be up to the leadership as to what would happen from then on.

One of the reasons for the predicament we are in is that from the beginning of time legislative bodies offer final decisions on matters and then get to them in the rush of the end of a session. That is an old story.

A possible remedy is that when business is in a logjam in a legislative committee, the committee on appropriations could go ahead and hold hearings on the basis of last year's expenditures. We

could finish hearings, advise the leadership, and wait for their guidance on where to go from there. I would like some serious thought to be given to this approach this year.

Mr. MAHON. The gentleman has made a helpful suggestion.

RELATION OF APPROPRIATIONS TO EXPENDITURES

Mr. JONAS. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I yield to the distinguished gentleman from North Carolina, who has announced that he intends to retire, and I must say his leaving will be a great loss to the United States.

Mr. JONAS. The gentleman from Texas is very kind. I appreciate his kindness.

I asked the gentleman to yield because of the remarks of the gentleman from Florida who attempted to relate the deficit to the difference between appropriations in 1 year and the budget for that year.

I think it is a fact that there is no relationship. The deficit occurs because the Government spends more in a given year than it takes in during that year, and not because of any difference between the budget requests and the actual appropriations in any one given year. Is that not true?

Mr. MAHON. If I understood the gentleman, the gentleman is correct.

Mr. JONAS. What I mean is that we will spend money this year that was appropriated several years ago, and some of the money we appropriated last year will not be spent for years in the future.

Mr. MAHON. If we appropriate for a billion dollar aircraft carrier this year, relatively little would be spent the first year and all the money would not be spent for perhaps 5 or 6 years.

Mr. JONAS. So the only way we can account for a deficit is to relate the receipts for a fiscal year to the expenditures in that fiscal year.

Mr. MAHON. True.

CONGRESS MAKES THE REVENUE AND SPENDING LAWS

Mr. JONAS. Is it not also true, without undertaking to lay any blame or assess any responsibility on any one branch of the Government and let the other escape, that neither the President of the United States nor any executive branch of the Government can spend a single dime that this Congress does not appropriate?

Mr. MAHON. The President cannot spend money not provided for through congressional action.

Mr. JONAS. Through action of the Congress. He does not have any magic wand by which he is permitted to derive any money that we do not make available to him. So I agree with the gentleman there is plenty of blame to spread around, but we in the Congress cannot escape our responsibility for the spending by this Government, because we make the money available. The only way to stop these deficits is to stop making so much money available. And that is Congress' responsibility and we should assume it.

The SPEAKER. The time of the gentleman from Texas has expired.

(On request of Mr. CEDERBERG, and by unanimous consent, Mr. MAHON was allowed to proceed for 5 additional minutes.)

Mr. CEDERBERG. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I yield to the gentleman from Michigan.

Mr. CEDERBERG. Mr. Speaker, I would like to say I think we are fortunate in the House to have a gentleman of the stature of the gentleman from Texas as head of the Appropriations Committee. He does a tremendous job with a very difficult situation. When we recognize that about 70 percent of our budget is relatively uncontrollable under present law; when we recognize our expenditures are rising sharply and much of them necessarily so, and our revenues at the same time are failing to live up to expectations, that this puts many of us who serve on the Appropriations Committee in a very difficult situation. But I do want to say this: I think the gentleman from Texas tries his very best as most of us on the Appropriations Committee do—to bring into line these facets and call to the attention of the Congress and the American people the fiscal situation we are facing.

As the gentleman from Texas pointed out also, it is the responsibility of the Congress of the United States to authorize and provide the money for the President of the United States regardless of his political party. We give him the authority to spend and sometimes require him to spend. We demand in many instances that he spend whether the revenues are there or not. And most of us have supported a reduction in the revenues.

So the gentleman from Texas, I think, does a very commendable job under very difficult circumstances. He presents us every year, as the budget comes to us, with pertinent information, and he alerts us to the problems facing us. I do not think enough of us in the Congress have paid sufficient attention to the gentleman's advice and his words of caution.

Mr. MAHON. I thank the gentleman for those very generous remarks. The gentleman himself is a tower of strength in the committee and in the House.

The gentleman mentioned that we demand at times that the money be spent by the administration in power. That is what we do. I wish we would get away from this practice of from time to time, for instance, saying in an education bill or in a foreign aid bill or some other kind of bill, that the President shall—shall—expend the funds under the rules and regulations provided. We can appropriate the money, but for us to go further and invade the prerogatives of the executive, I think is not good. This does not mean the executive should not carry out the will of the Congress in the various programs we approve, but we are getting into the practice of trying to go beyond the scope of our legislative authority, in my judgment.

Mr. VANIK. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I yield to the gentleman from Ohio.

REVENUE SHARING WITH STATES AND LOCALITIES

Mr. VANIK. Mr. Speaker, in view of the gentleman's concern about the budget, is it realistic to think the Federal Government can afford new tax programs designed to transmit funds to local governments and school systems as substitute for local taxes?

Mr. MAHON. If we had the money, for example, we might want to provide for the distribution of certain excess funds to the States under appropriate patterns and guidelines. But we have already pointed out that the Federal funds deficit this year, according to estimates, will be \$44.7 billion, and perhaps it will be much larger. Clearly we do not have the money to share with the States at this time. Nor are they in prospect next year, according to today's budget.

It just does not seem realistic to undertake to share money which we do not have. It just means more borrowing, more inflation, and more uncertainty here and abroad. The free world money system is based on the dollar and people and governments overseas are concerned, as those of us here are concerned. Our economic strength and thus our national security are involved.

I believe we are treading on very dangerous ground. If we ever have the money on hand or in sight, I believe that would be the time to consider whether or not we want to make these block-type grants to the States. As the gentleman knows, we already make many grants to the States, but, generally speaking, the grants being sought by the States and communities are additional grants to those already being made for specific purposes.

Mr. VANIK. I thank the gentleman.

Mr. COLLIER. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I yield to the gentleman from Illinois.

Mr. COLLIER. Is it not true, however, under the present system there are a host of Federal programs, many misdirected, many ill-conceived, many that involve tremendous expenditures in administrative costs, which could well be replaced by a revenue-sharing proposal, wherein the States and local communities would have a flexibility which in many cases they do not presently have? So, on a long haul basis, the concept of revenue sharing could more than be paid for by a proper reduction of financing of existing Federal programs that are directed or misdirected, as the case may be, to some communities and some States without the flexibility they need to determine their own priorities.

Mr. MAHON. The gentleman has made a very provocative statement. If we could thus have a more effective way of making grants for education, for health, for improving the environment, and otherwise, and get better efficiency out of these programs, this would be in the public interest, in my judgment.

The SPEAKER. The time of the gentleman from Texas has again expired.

(On request of Mr. COLLIER, and by unanimous consent, Mr. MAHON was allowed to proceed for 1 additional minute.)

Mr. COLLIER. Mr. Speaker, I should

like to point out that virtually every time there is an effort made to cut back, or even to maintain the budgetary request at the requested fund level, many of my colleagues, because of lobbying by a host of pressure groups around the country, come in to say, "This is not enough."

So long as the Congress repeatedly yields to the demands of pressure groups for expanding programs beyond the budgetary requests, which happened several times last year, obviously we are not going to find a solution. But I do not believe the answer is to discard the concept of revenue sharing merely because we have not had the political resistance to oppose or prevent the expanding of Federal programs beyond these budgetary requests—or to cut some of them down, for that matter.

Mr. MAHON. I thank the gentleman.

GUARANTEEING INTEREST SUBSIDIES

Mr. SMITH of Iowa. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I yield to the gentleman from Iowa.

Mr. SMITH of Iowa. Would the gentleman also comment on the fact that not included in the budget—it does not show up at all—is about \$5 billion in additional debt which will be accumulated as a result of guaranteeing interest subsidies. Until a few years ago we had none of this, but appropriated funds have been replaced in many programs with guarantees of interest subsidies, which amount to \$5 billion more.

Mr. MAHON. I do not know precisely what the figure is, but it would be sizable indeed. Programs such as interest subsidies and the rent supplement program and others obligate the taxpayer to expenditures over a period of many years. There is typically, a very small expenditure in the first year.

The SPEAKER. The time of the gentleman from Texas has again expired.

(On request of Mr. SIKES, and by unanimous consent, Mr. MAHON was allowed to proceed for 3 additional minutes.)

Mr. SIKES. Mr. Speaker, will the distinguished gentleman from Texas yield?

Mr. MAHON. I yield to the gentleman from Florida.

Mr. SIKES. Only for a point of clarification. My dear and distinguished friend from North Carolina (Mr. JONAS) made reference a little bit ago to earlier comments by the gentleman from Florida. My comments had to do with the fact that authorizations also contribute to deficits.

Mr. MAHON. The gentleman was referring to another gentleman from Florida.

Mr. SIKES. I am sure that is the case, but there is a difference. I should like to have that point clarified.

Mr. JONAS. Mr. Speaker, will the gentleman yield, in order that I may make it clear?

Mr. MAHON. Yes.

Mr. JONAS. I should like to have the RECORD show that my reference was to the distinguished gentleman from Florida (Mr. GIBBONS).

Mr. MAHON. Yes.

OVERALL CONSIDERATION OF THE BUDGET

Now, Mr. Speaker, the President has asked, and the country has asked, and many of us have asked that we give con-

sideration to the overall budget and the overall problems confronting the country.

That we have been doing today, and this exercise over the last 50 minutes has been most heartening and most encouraging. Over the years, following the submission of the budget message, we have had discussions on the floor in regard to the budget. This is the first time I can recall offhand since I have been in the Congress—and this is my 38th year—that I have seen this much interest expressed in the overall budget picture. This means to me that there is a growing awareness of the possibility of a dismal fiscal collapse of our system and an awareness of the fact that as a Congress and as a country we have to do something before we go over the brink into what could be fiscal and economic chaos.

Mr. Speaker, I should like to say that I shall try to supplement what I have said with additional information which can well be documented in the budget and in the public records.

I think we need to have frequent debates and reports on our fiscal affairs, and I would hope that we will be able to do so as the session progresses.

Thank you.

Mr. COLMER. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I will be glad to yield to the gentleman if I have time.

The SPEAKER. The gentleman has 1 additional minute.

Mr. COLMER. I would just like to take advantage of this 1 minute, as I have been wanting to get the floor for some time, first to commend the gentleman for his statement and second, to commend all of the gentlemen who have spoken here this morning, for the lack of partisanship in their discussion of this vital question, and, third, if I have a suggestion with regard to maybe something that has not been emphasized sufficiently, it would be the overall effect of this fiscal irresponsibility, this deficit spending, upon the greatest problem that the country faces, in my judgment, and that is inflation.

I want to congratulate the gentleman for provoking this debate here this afternoon. I hope that it will bear fruit as we go along, because I want to emphasize again what the gentleman from North Carolina (Mr. JONAS) said, namely, that the President cannot spend a dime that we do not provide.

The SPEAKER. The time of the gentleman from Texas has again expired.

(By unanimous consent, at the request of Mr. BYRNES of Wisconsin, Mr. MAHON was allowed to proceed for 2 additional minutes.)

Mr. BYRNES of Wisconsin. Will the gentleman yield to me?

Mr. MAHON. I am glad to yield to the distinguished gentleman from Wisconsin.

PROPOSED EXPENDITURE CEILING FOR FISCAL YEAR 1973

Mr. BYRNES of Wisconsin. Of course, what we are talking about with respect to a \$44 billion deficit or a \$38.8 billion deficit is really the expenditure side. As has been pointed out by the gentleman from North Carolina (Mr. JONAS), the Appropriations Committee fundamen-

tally deals with obligational authority, but does not focus on the expenditures for any particular period of time.

The President, however, in his budget message to us today has asked—and I believe this is the first time an Executive has done so—for a spending limitation. That deals with expenditures.

The question I have to ask the gentleman is whether he believes his committee will, in addition to the details of his study with respect to obligational authority, be able to examine, in more depth than it has been able to in the past, the expenditure levels for, let us say, fiscal 1972 and fiscal 1973, and then be able to tie that in with an expenditure ceiling for the given fiscal year.

Mr. MAHON. We could handle that in connection with a supplemental appropriation bill. There are some supplemental requests on the way to the Congress now. In that supplemental bill we can ask for a rule and we would provide an expenditure ceiling, after conducting hearings and carefully weighing the fiscal requirements. Thereby the committee, which handled the appropriation of the money thus would fix a rate at which it could be spent. This, I think, is a desirable procedure. I support it.

Mr. BYRNES of Wisconsin. I think the gentleman has wisely warned this Congress and the public of the impending fiscal crisis. I would certainly agree with the gentleman that any tool that might have some effect, even though it is not perfect, in putting some restraint on spending and the impending fiscal crisis we should seize upon at the earliest opportunity.

CONGRESSIONAL ACTIONS ON THE FISCAL YEAR 1972 BUDGET

Mr. MAHON. Mr. Speaker, under leave to extend, and in further response to an earlier question of the gentleman from Michigan, I refer to a detailed statement which I inserted in the Record of Janu-

ary 20, 1972, page 605, relating to the matter of congressional actions in the last session on the 1972 budget. The matter I believe is of sufficient importance that I include at this point the statement of January 20, 1972:

COMPREHENSIVE BUDGET SCOREKEEPING: CONGRESSIONAL ACTIONS AND INACTIONS IN THE FIRST SESSION OF THE 92D CONGRESS, AFFECTING THE FISCAL YEAR 1972 BUDGET

(By Hon. George H. Mahon, of Texas, in the House of Representatives, Thursday, January 20, 1972)

Mr. MAHON. Mr. Speaker, in reporting to the House on adjournment day, December 17, on the appropriations business of the first session, I pointed out that while most of the spending side of the budget on which Congress annually acts is handled in the appropriation bills, congressional actions—and inactions—on budget proposals in various legislative bills significantly affect the budget and fiscal picture. They weigh importantly in any comprehensive comparison of congressional results with the President's budget and fiscal recommendations—as to obligational authority, as to expenditures, and of course as to revenues.

A few days after adjournment, the staff of the Joint Committee on Reduction of Federal Expenditures issued its comprehensive budget "scorekeeping" report. Copies were made available to each Member of Congress, to the press, and others. I should like to supply a capsulization of the scorekeeping report and some selective listings of the major variations from the 1972 budget recommendations.

Briefly, it shows:

First. That Congress, in all its actions and inactions on the 1972 budget, made a substantial net reduction in respect to new budget obligational authority. It made many changes and failed to take certain recommended actions, but the overall effect was a substantial net reduction from the Executive recommendations for new spending authority.

Second. That congressional actions and inactions in their impact on Executive estimates at 1972 expenditures—budget outlays—were about a standoff—slightly below the estimates, according to the scorekeeping report, but essentially a standoff.

Third. In respect to 1972 revenue proposals by the Executive, congressional actions and inactions, according to the scorekeeping report, did not reduce projected budget revenues quite as much as proposed—by about one-half billion dollars.

SUMMARY OF CHANGES—OUTGO SIDE OF BUDGET

In summary, the Congress in its action on the appropriation bills reduced the President's request for new budget obligational authority by about \$2.2 billion with a resulting decrease of about \$744 million in expenditures—budget outlays—from that proposed in the budget estimates.

Congress in its actions on certain non-appropriation bills also affected materially the amount of new budget obligational authority and expenditures. The staff analysis estimates that the nonappropriation bills on which Congress completed action in the first session will result in a grant of new budget obligational authority of about \$1 billion in excess of the budget proposals with an estimated increase in expenditures of about \$3.8 billion. This latter increase includes the social security benefit increase estimated to cost \$1.4 billion which was approved without the proposed increase in tax rate and base; \$1.2 billion due to approval of the Federal employee pay raise effective January 1, 1972, instead of July 1, 1972; and an increase of about \$485 million in the cost of the all-volunteer army as compared with the budget request. These increases in new budget authority in nonappropriation bills were more than offset by budget authority reductions in the appropriation bills in respect to fiscal 1972, but in terms of expenditures—budget outlays—this was not the case.

However, by its inaction—to date—on certain legislative proposals in the 1972 budget, Congress did not approve about \$5.3 billion in proposed new budget obligational authority involving about \$3.1 billion in outlays. Major programs in this category include revenue sharing, medicare liberalization, and emergency school desegregation assistance. Of course, to the extent Congress approves these pending legislative proposals in the second session of the 92d Congress, the presently approved level of new budget obligation authority and expenditures would be affected.

The following table summarizes the comparisons:

COMPARISON OF CONGRESSIONAL ACTIONS AND INACTIONS AFFECTING FISCAL YEAR 1972 BUDGETARY RECOMMENDATIONS—OUTGO SIDE (AS OF THE END OF THE 1ST SESSION OF THE 92D CONGRESS, DEC. 17, 1971)

(In thousands of dollars)

	Budget authority			Budget outlays (expenditures)		
	House	Senate	Enacted	House	Senate	Enacted
1. The appropriation bills.....	-3,974,753	+521,054	-2,221,507	-1,872,500	+700,300	-744,000
2. Legislative bills:						
(a) With backdoor spending authorizations.....	+50,000	+50,000	+50,000			
(b) With mandatory spending authorizations.....	+1,750,588	+2,292,575	+702,075	+6,677,988	+5,249,275	+3,585,575
(c) Affecting certain proposals in the 1972 budget.....	+15,735	-187,065	+271,735	+921,000	+248,200	+207,000
Subtotal, legislative bills.....	+1,816,323	+2,155,510	+1,023,810	+7,598,988	+5,497,475	+3,792,575
3. Inaction on legislative proposals in the 1972 budget.....	-4,668,174	-4,809,374	-5,268,174	-3,121,540	-3,162,740	-3,121,540
Total, congressional action and inaction affecting fiscal year 1972 budgetary recommendations.....	-6,826,604	-2,132,810	-6,465,871	+2,604,948	+3,035,035	-72,965

Note: For details on a bill-by-bill basis, see table No. 1, Budget Scorekeeping Report of the Staff of the Joint Committee on Reduction of Federal Expenditures, Dec. 17, 1971.

THE APPROPRIATION BILLS

In the appropriation bills with respect to fiscal 1972 amounts, there was a net reduction from the requests for new budget obligational authority of \$2,221,507,000.

The House totals were \$3,974,753,000, net, below the requests considered.

The Senate totals were \$521,054,000, net, above the requests considered.

These changes in the new spending authority requests translate—according to joint committee staff estimates—into

changes from executive expenditure estimates—budget outlays—as follows: House, -\$1,872,500,000; Senate, +\$700,300,000; enacted -\$744,000,000.

The \$2,221,507,000 net congressional reduction in new budget authority requests for fiscal 1972 in the appropriation bills breaks down by bills this way:

(In thousands)

1. Education Net change from budget -\$6,875

2. Legislative -\$6,040
 3. Treasury, Postal Service, General Government..... -280,229
 4. Agriculture, Environmental and Consumer Protection..... +1,172,086
 5. State, Justice, Commerce, Judiciary -149,686
 6. Interior +29,386
 7. HUD, space, science, veterans +882,721
 8. Transportation +44,983
 9. Labor-HEW +581,025

	Net change from budget
10. Public Works, AEC.....	+\$59,043
11. Military construction.....	-92,708
12. Defense.....	-3,025,366
13. District of Columbia (Federal funds).....	-16,600
14. Foreign assistance.....	-1,581,708
15. Summer feeding programs for children (H.J. Res. 744).....	+17,000
16. Supplemental, 1972.....	+151,461

Total, 16 measures..... -2,221,507

There follows a selective listing of some of the major increases and decreases involved in the net overall reduction in budget authority of \$2,221,507,000 in the appropriation bills:

Selected major increases above the fiscal year 1972 budget requests (in the appropriation bills)

[In thousands]	
HUD, water and sewer grants....	+\$500,000
REA loans.....	+216,000
Food stamps.....	+198,816
School milk program.....	+104,000
Urban renewal programs (half-year funding provided for program requested as supplemental for proposed revenue sharing legislation which was not enacted).....	+650,000
Model cities program.....	+150,000
Veterans medical care programs.....	+190,000
Mental health.....	+112,750
Medical facilities construction....	+167,827
National Institutes of Health....	+142,130
School assistance in federally affected areas.....	+172,580
Elementary and secondary education.....	+138,000
Vocational and adult education....	+100,115

Selected major reductions below the fiscal year 1972 budget requests (in the appropriation bills)

[In thousands]	
Higher education (proposed authorizing legislation for student loan fund not enacted, and funding eliminated).....	-\$400,000
Community development, open space land programs.....	-100,000
Manpower training services:	
Public sector on-the-job training.....	-90,400
Special targeting.....	-120,800
Defense budget:	
Procurement funds falling authorization.....	-662,600
Research, development, test, and evaluation funds falling authorization.....	-257,000
Reductions in NOA requirements offset by application of excess prior year and stock fund balances.....	-945,600
Reduction associated with 56,000 man-year force reduction mandated in Selective Service Act.....	-286,800
Termination of main battle tank program.....	-66,600
Reduction in intelligence programs.....	-222,300
Reduction in civilian personnel cost.....	-49,435
Reduction in SAFEGUARD anti-ballistic missile system.....	-177,400
Foreign assistance (at the interim annual rate provided through February 22 in the continuing resolution, Public Law 92-201).....	-1,581,708

NONAPPROPRIATION BILLS

Completed congressional actions in the recent session in certain nonappropriation bills out of the legislative committees having

a direct or mandatory effect on the 1972 budget estimates are estimated by the staff of the Joint Committee on Reduction of Federal Expenditures to result in an increase of \$1,023,810,000 in new budget obligatory authority and an increase of \$3,792,575,000 in expenditures—budget outlays.

The major legislative actions involved in this calculation are:

	Budget authority	Budget outlays
Social security benefit increase without requested rate increase and rise in tax base.....	-\$833,000,000	+\$1,385,000,000
Federal employee pay raise.....	+1,200,000,000	+1,200,000,000
Cost of all-volunteer army above amount requested in budget.....	+484,800,000	+484,000,000
2 actions raising Railroad Retirement benefits above request, without full requested rate increase.....	-24,000,000	+238,000,000
Elimination of proposed 110 percent limitation on public assistance administrative grants.....	+232,000,000	+232,000,000
2 school lunch actions (funded through CCC).....		+215,000,000
13-week extension of unemployment benefits (eligibility begins; probable future appropriations).....		+196,500,000

INACTION ON 1972 BUDGET ITEMS

The Congress failed to complete action during the last session on a number of legislative proposals in the President's 1972 budget, several of which would have resulted in reductions. The Joint Committee on Reduction of Federal Expenditures has estimated that the net effect of these inactions as of the close of the first session is to reduce the budget totals by \$5,268,174,000 in new budget obligatory authority and \$3,121,540,000 in expenditures—budget outlays.

The major inaction items are:

	Budget authority	Budget outlays
Revenue sharing (general and special, including HUD community development).....	-\$3,506,000,000	-\$2,569,000,000
Medicare liberalization.....		-977,500,000
Emergency school desegregation assistance.....	-1,000,000,000	-300,000,000
International financial institutions.....	-845,000,000	-57,000,000
Medicaid reform.....	+444,000,000	+444,000,000
Farmers Home Administration—Reduction in direct loans.....		+275,000,000

Much of this legislation will still be pending in the second session of the 92nd Congress; some may be enacted in the second session; and much may possibly be included in some form or another in the new 1973 budget to be submitted later this month.

CHANGES IN FISCAL YEAR 1972 BUDGET REVENUE PROPOSALS

Mr. Speaker, in the aggregate, according to final "scorekeeping" report estimates of the joint committee staff, there was not much change reflected in congressional actions from the total of the revised budget revenue proposals for fiscal 1972.

As amended and enacted by the Congress, the President's tax reduction package amounted to net revenue reductions of about \$1.4 billion less than the President requested, largely due to inclusion of depreciation rollback. However, the Congress failed to complete action on about \$800 million in proposed social security revenue increases.

These are the major congressional scorekeeping items contributing to the relatively slight net increase of \$497 million over the 1972 budget revenue requests.

Mr. ALBERT. Mr. Speaker, I received a copy of the budget only an hour ago and as a result I have only been able to review it in a very limited manner. However, it is clear from even a cursory perusal of the budget that President Nixon, despite the fact that we have a sick economy with 6.1 percent unemployment, plans no expansion, but rather a contraction, in the public sector of the economy. He recommends significant decreases in the areas of health, housing, education, antipollution, and economic development. I find this most unfortunate because I feel that these areas should be accorded a higher, rather than a lower, national priority. These are the very same areas in which the Congress last year chose to increase the President's budget recommendations. I am confident that we will do likewise this year.

The attached table illustrates what the President proposes to do or rather not to do in these areas:

[In millions]			
	Appropriated 1972	Budget recommendation 1973	Decrease
HUD—Community development:			
1. Grants for basic water and sewer facilities.....	\$500	-----	\$500
2. Urban renewal.....	1,250	\$1	250
HEW—Education:			
1. Elementary and secondary.....	2,026	1,787	239
2. Federal assistance in impacted areas.....	613	431	182
3. Vocational education.....	569	542	27
4. Higher education.....	1,609	1,193	416
HEW—Health:			
1. Health services planning and development (Hill-Burton construction).....	500	389	111
2. Health manpower.....	674	533	141
Commerce Department:			
1. Economic development assistance for depressed areas.....	217	188	29

Mr. MILLER of Ohio. Mr. Speaker, I would like to take this opportunity to comment for a moment on a situation which I consider alarming. Today the President of the United States has submitted the Federal budget for fiscal year 1973 to the Congress for consideration, and for the past hour the distinguished chairman of the House Appropriations Committee (Mr. MAHON) has discussed the budget—its scope and importance—for the benefit of his colleagues in the House of Representatives.

It is not necessary to elaborate on the importance of the Federal budget. Every Member of Congress knows full well the importance of this matter and should, accordingly, devote a major portion of the day the document is submitted to Congress to hearing the initial debate involving the matter. After all, the budget represents billions of dollars earned by the taxpayers who sent all of us to Washington in the first place.

However, the attendance of the membership of the Congress during Mr. MAHON's discussion of the budget was an insult to those people. Approximately 65

House Members—little more than 13 percent of the entire House membership—bothered to listen to the chairman's discussion of how the financial pie for defense, human resources, pollution control, governmental operations, transportation, commerce, education, health services and manpower training might ultimately be divided.

Hardly a day passes but what Members of Congress are not reminded of their primary responsibility—to represent the best interests of an already over-taxed public. It would behoove us to remember that on all matters coming before the House, but even more so when considering the budget. Yet, few faces were seen in the Chamber on this day.

Later this week, Members will gather for an official House photograph. Hardly an important matter, by any standard. Yet I am willing to predict, Mr. Speaker, on that day most seats will be filled.

It might be more appropriate that the official House photo be snapped during the budget discussion today.

GENERAL LEAVE

Mr. MAHON. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks in the RECORD with respect to the President's budget.

The SPEAKER. Is there objection to the request of the gentleman from Texas?

There was no objection.

AUTHORIZING THE U.S. CAPITOL HISTORICAL SOCIETY TO TAKE PICTURES OF THE HOUSE WHILE IN SESSION

Mr. COLMER. Mr. Speaker, by direction of the Committee on Rules, I call up House Resolution 773 and ask for its immediate consideration.

The Clerk read the resolution as follows:

H. RES. 773

Resolved, That upon the adoption of this resolution it shall be in order to move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the resolution (H. Res. 761) authorizing the United States Capitol Historical Society to take pictures of the House while in session. After general debate, which shall be confined to the resolution and shall continue not to exceed one hour, to be equally divided and controlled by the chairman and ranking minority member of the Committee on Rules, the resolution shall be read for amendment under the five-minute rule. At the conclusion of the consideration of the resolution for amendment, the Committee shall rise and report the resolution to the House with such amendments as may have been adopted, and the previous question shall be considered as ordered on the resolution and amendments thereto to final passage without intervening motion except one motion to recommit.

Mr. COLMER. Mr. Speaker, I yield 30 minutes to the distinguished gentleman from California (Mr. SMITH), pending which I yield myself such time as I may consume.

Mr. COLMER. Mr. Speaker, this reso-

lution really explains itself by the reading thereof.

It simply authorizes that a picture may be taken of the House while in session, which I understand will be day after tomorrow. That is all there is to it, except I might say that it is also for the benefit of the U.S. Capitol Historical Society.

Mr. GROSS. Mr. Speaker, will the gentleman yield?

Mr. COLMER. I will be happy to yield to the gentleman from Iowa.

Mr. GROSS. Mr. Speaker, I would ask the gentleman from Mississippi what is the purpose of this outpouring of—what do you call it?—good looks or pulchritude, or whatever it is? What is the purpose of all of this, of this picture?

Mr. COLMER. Let me say to the gentleman from Iowa in all seriousness that the gentleman understands the situation as well as I do. As a matter of fact, he is possibly a more intelligent man than I am, and he understands that in such a society as ours they like to have such pictures.

And, again in all seriousness, I do not see anything wrong with having an official picture of the Members of this Chamber while the Chamber is in session.

If the gentleman will permit me to proceed further, I also believe the gentleman from Iowa as well as I will be pleased to know that this is not going to cost the Government anything; it pays for itself.

Mr. GROSS. That is just wonderful. I can understand it when the gentleman from Mississippi, for instance, and the gentleman from Missouri (Mr. HALL) are involved in a picture—I can understand the reason for it, but I would like to exempt myself from adding anything to a picture of this kind.

So, as I said, I just wondered what the purpose of it was. The gentleman has explained this, and I am particularly impressed with the fact that it will not cost any money—at least, at this time.

So I thank the gentleman for yielding.

Mr. COLMER. Mr. Speaker, if I may just add further, of course the gentleman from Iowa, the gracious gentleman that he is, I am sure that he would like to have an authentic picture of the gentleman from Missouri (Mr. HALL), his good friend, and the gentleman from Mississippi—and I hope he will agree is his good friend—but with equal graciousness, we would like to have a picture with the gentleman from Iowa in it. I believe this is a worthwhile idea. The expense will be cared for by those who purchase the books.

Mr. PICKLE. Mr. Speaker, I am proud to sponsor this resolution that calls for the taking of an official picture of Congress for the inclusion in the eighth edition of "We, the People." This book is published by the U.S. Capitol Historical Society and is distributed throughout the world in six world languages, French, Italian, German, Spanish, Portuguese and English. Only one other official picture of Congress has been taken and that was in 1965.

This picture will be made available for legitimate nonprofit news and educational purposes at a price that will cover the costs involved. There will also be a copy of the photograph available for each Member.

I think this official picture is a good idea and I hope it receives the support of the House.

Mr. SMITH of California. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, the resolution has been explained by the distinguished chairman, the gentleman from Mississippi (Mr. COLMER). "We, the People" is, of course, a very popular publication. I think our constituents and visitors like it. I believe it is important that we do have a picture of the House in that publication.

I would say further, Mr. Speaker, that I do not believe the resolution for this purpose is really necessary because there is nothing that I know of in the rules that prohibits the taking of a picture. My recollection is that in going back to the days of the late and distinguished Sam Rayburn, that he was pretty much opposed to the taking of pictures, and that policy has followed through. So in order that there will not be any mistake that this picture is authorized and is approved, we have presented this resolution. House Resolution 761. The rule, House Resolution 773, actually provides for 1 hour of debate after the adoption of the rule, House Resolution 773, in which the gentleman from Mississippi (Mr. COLMER) and I have a half hour on each side.

We do not have any need to consume that much time, so that I would hope that as soon as we adopt the rule, House Resolution 773, that we can then immediately approve House Resolution 761.

Mr. SCHWENGEL. Mr. Speaker, will the gentleman yield?

Mr. SMITH of California. I yield to the gentleman from Iowa (Mr. SCHWENGEL).

Mr. SCHWENGEL. Mr. Speaker, I thank the gentleman for yielding. I guess that I initiated the idea of this picture by going to the leadership and asking for the opportunity to take such a picture.

The last time we had an official picture taken was in 1965, and since then there have been a lot of changes in the House. Since that time five new editions of "We, the People" have been published, and over 2.6 million copies have been sold. We would hope that in the eighth edition now underway, we can have this new official picture placed in that book so that it can be distributed all over the United States as it is distributed through our outlets and fill requests that come by mail.

In addition, Mr. Speaker, this whole operation will cost the taxpayers nothing and there is no prospect that it will cost anything. I think our past record proves that.

In addition, as in the past the board of the Historical Society has made one four-color copy suitable for framing available to each Member of the House. This will be done again.

I might say that the Senate, which is not often ahead of us, already had their picture taken for the society. I can assure the Members of the House that we will carefully and fairly use this opportunity to have and distribute the books, and there are virtually hundreds of them since the first picture was taken, will have the same access to the availability of this picture. In addition it will be made available to any Member of

the House requiring it at a reasonable cost.

Mr. Speaker, speaking for myself and the members of the board of the U.S. Capitol Historical Society, I want to express deep appreciation for the cooperation extended whenever the society had a need to carry out their program and desires to effectively tell the story of this fabulous building.

Mr. SMITH of California. Mr. Speaker, I urge the adoption of the pending resolution (H. Res. 773.)

Mr. COLMER. Mr. Speaker, I move the previous question on the resolution.

The previous question was ordered.

The resolution was agreed to.

A motion to reconsider was laid on the table.

Mr. COLMER. Mr. Speaker, I move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the resolution (H. Res. 761) authorizing the U.S. Capitol Historical Society to take pictures of the House while in session.

The motion was agreed to.

IN THE COMMITTEE OF THE WHOLE

Accordingly the House resolved itself into the Committee of the Whole House on the State of the Union for the consideration of the resolution (H. Res. 761), with Mr. ROUSH in the chair.

The Clerk read the title of the resolution.

By unanimous consent, the first reading of the resolution was dispensed with.

The CHAIRMAN. Under the rule, the gentleman from Mississippi (Mr. COLMER) will be recognized for 30 minutes, and the gentleman from California (Mr. SMITH) will be recognized for 30 minutes.

Mr. COLMER. Mr. Chairman, I have nothing further to say on this resolution, as I believe it was well covered during the debate on the rule.

Mr. Chairman, I have no requests for time and yield back the balance of my time.

The CHAIRMAN. The Chair recognizes the gentleman from California (Mr. SMITH).

Mr. SMITH of California. Mr. Chairman, I have no further comments to make other than what I presented during the consideration of the rule.

Mr. Chairman, I have no requests for time and urge the passage of House Resolution 761, when we go back in the House.

The CHAIRMAN. The Clerk will read the resolution.

The Clerk read as follows:

Resolved, That at a time designated by the Speaker, the United States Capitol Historical Society shall be permitted to take official pictures of the House while in actual session for inclusion in the new edition of "We The People". The pictures shall also be available for legitimate nonprofit news and educational purposes.

The CHAIRMAN. Are there any amendments to be proposed? If not, under the rule, the committee rises.

Accordingly, the committee rose; and the Speaker having resumed the Chair (Mr. ROUSH) Chairman of the Commit-

tee of the Whole House on the State of the Union, reported that that committee having had under consideration the resolution (H. Res. 761) authorizing the United States Capitol Historical Society to take pictures of the House while in session, pursuant to House Resolution 773, he reported the resolution back to the House.

The SPEAKER. Under the rule, the previous question is ordered.

The question is on the resolution.

The resolution was agreed to.

A motion to reconsider was laid on the table.

THE DEFICIENCY IN THE TAFT-HARTLEY ACT AND THE RAILWAY LABOR ACT FOR SETTLEMENT OF LABOR DISPUTES SHOULD BE CORRECTED

(Mr. ARENDS asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. ARENDS. Mr. Speaker, the deficiency in the Taft-Hartley Act and the Railway Labor Act for settlement of labor disputes endangering our national welfare, health, or safety has long been recognized. Four times—in 1963, in 1967, and twice in 1970—the Congress was obliged at the 11th hour to enact special legislation dealing with a specific railroad strike that threatened to bring our national economy to a standstill.

Time and time again we have urged action by the Congress to correct this deficiency. A number of us have introduced bills for this purpose—in this Congress, in the last Congress, and in previous Congresses. But neither the Committee on Interstate and Foreign Commerce nor the Committee on Education and Labor before which such legislation is pending has taken any action.

On February 27, 1970, President Nixon sent a special message to the 91st Congress recommending remedial legislation to "repair the deficiency in existing legislation and to better protect the public."

On February 3, in the last session of this Congress, the President again sent a special message on this matter, emphasizing the urgency.

Still no action by the Congress. Once again we are faced with a critical situation, and once again the Congress is faced with the necessity of enacting special legislation to deal with a special situation which Congress itself allowed to develop. For the Congress to be called upon to legislate on a specific labor dispute can never be a satisfactory procedure, and particularly when the emergency pressures are more conducive to emotion than reasoned judgment. Compulsory arbitration is not a satisfactory method of resolving labor disputes, but there is now no alternative but to take the action immediately in accordance with the President's recommendation.

Mr. Speaker, I call upon the majority leadership of this House—I call upon the Committee on Interstate and Foreign Commerce and the Committee on Education and Labor—to act and act now. I call for action not solely on the proposed legislation to deal with the present dock

strike. I call for action on the proposed permanent legislation that we will not again be confronted with this critical situation.

I decry the "public be damned" attitude that the Congress has taken these past several years with respect to national emergency work stoppages endangering our country's national welfare and safety.

REAL ESTATE AND SECURITIES ACT OF 1972

(Mr. GOLDWATER asked and was given permission to address the House for 1 minute, to revise and extend his remarks and to include extraneous matter.)

Mr. GOLDWATER. Mr. Speaker, today I am introducing the Real Estate and Securities Act of 1972. This legislation has four major purposes:

First. To provide consumer protection in interstate real estate activities and to promulgate the highest of professional standards in the interstate real estate industry;

Second. To promulgate the sale and liquidity of real estate security interests, thereby affording people a greater opportunity of real estate ownership;

Third. To create a commission for the administration of the act, which commission would take over the functions currently administered by the Department of Housing and Urban Development under the Interstate Land Sales Act, and the Securities and Exchange Commission under certain laws; and

Fourth. To regulate interstate real estate and real estate securities activities through licensing.

The Federal Government has, of late, greatly expanded its efforts to protect the American consumer. However, this protection has been extended to purchasers of land in interstate commerce only through the Interstate Land Sales Act. While a step in the right direction, this measure leaves many loopholes through which the unwary purchaser of out-of-State land may be defrauded.

My bill provides a service to the American land buyer, to the real estate profession, and to the Federal Government by bringing together consumer protection, licensing, and administration under one coherent agency. Government reorganization in the interests of efficiency and economy has been a central theme of this administration, and I feel that establishment of a Real Estate Commission to protect the interstate land buyer will further this end by bringing together under one roof functions that are currently scattered through at least three separate agencies and departments.

Title 14 of the Housing and Urban Development Act of 1968—The Interstate Land Sales Full Disclosure Act—is repealed, and certain jurisdictions of the Securities Acts of 1933, 1934, and 1940 are affected. The result is creation of an agency which will be comprised of experts in real estate dedicated to protection of the land-buying public.

I have nothing but the highest respect for the real estate industry as a whole, especially the National Association of

Real Estate Boards. I am sure that they will welcome this legislation as a means of codifying their professional ethics and advancing their standing in the eyes of the general public.

Mr. Speaker, I include the text of the Real Estate and Securities Act of 1972 be printed in full in the RECORD following this statement.

H.R. 12548

A bill to provide consumer protection in interstate real estate activities and to promulgate the highest of professional standards in the interstate real estate industry, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Real Estate and Securities Act of 1972".

SEC. 2. When used in this Act, unless the context otherwise requires—

- (1) "Commission" means the Real Estate Commission created by this Act;
- (2) "member" means a member of the Commission;
- (3) "Commissioner" means the Real Estate Commissioner;
- (4) "broker" means a person licensed as a federal real estate broker under this Act;
- (5) "dealer" means a person licensed as a federal securities dealer under this Act;
- (6) "issuer dealer" means a person who is licensed as an issuer dealer under this Act;
- (7) "developer" means a person licensed as a federal real estate developer under this Act;
- (8) "investment manager" means a person who is licensed as a federal investment manager under this Act;
- (9) "appraiser" means a person who is licensed as a federal real estate appraiser under this Act;
- (10) "closing agent" means a person who is licensed as a federal closing agent under this Act;
- (11) "insurer" means a person who is licensed as an insurer under this Act;
- (12) "subdivision" means any real estate which is divided or proposed to be divided into five or more parcels or interests, whether contiguous or not, for the purpose of sale or lease or offer for sale, to the public;
- (13) "real estate investment company" means an association of two or more persons formed for the primary purpose of investment in real property wherein each investor does not have direct operation and control over the real property;
- (14) "real estate security" means that interest held by an investor in a real estate investment company;
- (15) "issuer" means every person who issues or proposes to issue real estate securities;
- (16) "sale" or "sell" refers to any contract of sale or disposition of real estate or real estate securities, for value;
- (17) "offer to sell" or "offer for sale" means an attempt or offer to dispose of, or a solicitation for the purchase or sale or lease or use of, an interest in real estate or real estate securities;
- (18) "real estate" or "real property" means land, all estates in title to land, and everything affixed thereon;
- (19) "interstate activity" means any trade or commerce in real estate or real estate securities or any transportation or communication relating thereto among the several States or between the District of Columbia or any Territory of the United States and any State or other Territory, or between any foreign country and any State, Territory, or the District of Columbia, or within the District of Columbia;
- (20) "registration statement" means the statement provided for in this Act and includes any amendment thereto and any re-

port, document, memorandum, or exhibit filed as a part of such statement or incorporated therein by reference;

(21) "write" or "written" refers to printing, lithographing, or any other means of graphic communication;

(22) "prospectus" means any prospectus, notice, circular, advertisement, letter, or communication, written or by radio or television, which offers for sale or confirms the sale of a real estate security;

(23) "underwriter" means any dealer who has purchased real estate securities from an issuer with the intent and for the purpose of further distribution;

(24) "person" means an individual, a corporation, a partnership, an association, a trust or any unincorporated organization; and

(25) "public offering" means any offer to sell real estate or real estate securities.

SEC. 3. (a) Except as hereinafter expressly provided, the provisions of this Act shall not apply to the following:

(1) The sale or lease, or offer to sell or lease, of any real estate by the United States or any Territory thereof, or by the District of Columbia, or by any political subdivision of a State or Territory, or by any public instrumentality of one or more States or Territories, or by any person controlled or supervised by and acting as an instrumentality of the Government of the United States pursuant to authority granted by law.

(2) The performance of any of the activities described in this Act by any person or agent not including any element of interstate activity.

(3) The sale or lease, or offer to sell or lease, of a single-family dwelling by a person who has utilized that dwelling as his bona fide place of residence.

(4) Any sale or lease, or offer to sell or lease, of real estate securities in a real estate investment company wherein the aggregate amount of property or money to be raised is \$500,000 or less, and each purchaser of each real estate security is a member of a class of investors whose investment experience and education are such that they do not, in the opinion of the Commissioner, require the protection of this Act.

SEC. 4. (a) There is hereby established a Real Estate Commission to be composed of five members to be appointed by the President, by and with the advice and consent of the Senate, which shall administer this Act. Not more than three of the members shall belong to the same political party. The President by and with the advice and consent of the Senate shall appoint one of the five members as Real Estate Commissioner. In order to be eligible for appointment each member, including the Commissioner, shall—

- (1) have education or training in law and the real estate business;
- (2) be a citizen of the United States; and
- (3) be at least 35 years of age.

The Commissioner shall not engage in any other vocation or employment than that of serving as Commissioner, nor shall the Commissioner participate in any activity regulated herein. The term of office of the Commissioner shall be ten years and until his successor is appointed and has qualified. At such time as a Commissioner has served at least ten years in office, and is replaced by a new Commissioner, the retiring Commissioner shall serve as Counsel to the new Commissioner for ten years thereafter.

(b) Each member (other than the Commissioner) shall serve for five years and until his successor is appointed. Any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of the term. The terms of the members first taking office after the enactment of this Act shall expire, as designated by the President at the time of nomination, one at the end of two years, one at

the end of three years, one at the end of four years, and one at the end of five years, from the date of enactment of this Act. Counsel to the Commissioner, and members other than the Commissioner, shall be permitted to engage in vocations, employment, or activities other than their employment herein, including but not limited to real estate activities.

(c) The Commission shall meet at least once per month at times and place established by the Commissioner. Any member who is personally involved in any matter, directly or indirectly, with which the Commission becomes involved, must immediately advise the Commissioner that a conflict of interest exists, and the member shall refrain from participating in any activities by the Commission therein.

(d) The Commission is authorized to appoint and fix the compensation of such officers, attorneys, accountants, appraisers, examiners, and other experts as may be necessary for carrying out its functions under this Act; without regard to the provisions of other laws applicable to the employment and compensation of officers and employees of the United States, and the Commission may, subject to the civil service laws, appoint such other officers and employees as are necessary in the execution of its functions and fix their salaries.

(e) Each member shall receive as his compensation for services rendered the sum of \$150 for each day or portion of a day in which he is employed in Commission business, plus any and all expenses incurred by the member in the performance of this employment including but not limited to travel expenses between the member's place of residence and the Commission's meeting place.

(f) Counsel to the Commissioner shall receive compensation for his services rendered in an amount equal to one-half the sum of the Commissioner's compensation, plus all expenses incurred by Counsel to the Commissioner in the performance of his duties. The Commissioner shall initially appoint to the position of Counsel to the Commissioner an individual who meets the requirements of clauses (1), (2), and (3) of subsection (a) of this section, and who shall serve in such position for the first ten years of operation of this Act.

SEC. 5. (a) Unless a registration statement is in effect as to an interest in real estate, or a real estate security, it shall be unlawful for any person, directly or indirectly—

(1) to make use of any means or instruments of transportation or communication in interstate commerce or of the mails to sell or offer to sell such interest or security through the use or medium of any prospectus or otherwise; or

(2) to carry or cause to be carried through the mails or in interstate commerce, by any means or instruments of transportation, any such interest in real property or real estate security for the purpose of sale or for delivery after sale.

(b) It shall be unlawful for any person, directly or indirectly, to make use of any means or instruments of transportation or communication in interstate commerce or of the mails to carry or transmit any prospectus relating to any interest in real property, or real estate security, with respect to which a registration statement has been filed under this Act, unless such prospectus meets the requirements of section 10(a).

(c) It shall be unlawful for any person, directly or indirectly, to make use of any means or instruments of transportation or communication in interstate commerce or of the mails to offer to sell or offer to buy through the use or medium of any prospectus or otherwise any interest in real property or a real estate security, unless a registration statement has been filed as to such real estate or real estate security, or while the

registration statement is the subject of a refusal order or stop order or (prior to the effective date of the registration statement) any public proceeding or examination under section 8.

SEC. 6. (a) Any interest in real property or real estate security may be registered with the Commission under the terms and conditions herein provided, by filing a registration statement in triplicate, at least one of which shall be signed by each owner or issuer, its principal executive officer, its principal financial officer, its comptroller or principal accounting officer, the majority of its board of directors or persons performing similar functions (or, if no such boards or officers exist, by the majority of persons having the power of management), and, in case the issuer or owner is a foreign or Territorial person, by its duly authorized representative in the United States; except that when such registration statement relates to an interest in real property or a real estate security issued or owned by a foreign government, or political subdivision thereof, it need be signed only by the duly authorized representative thereof. Signatures of all persons when written on such registration statements shall be presumed to have been so written by authority of the person whose signature is so affixed and the burden of proof, in the event such authority shall be denied, shall be upon the party denying the same. The affixing of any signature without the authority of the purported signer shall constitute a violation of this Act. A registration statement shall be deemed effective only as to the interest in real property or real estate security specified therein as proposed to be offered.

(b) At the time of filing a registration statement the applicant shall pay to the Commission a fee of \$100 plus the sum of one fiftieth of one per centum of the proposed offering price of the interest in real property including encumbrances thereon, or, in the event of real estate securities, \$100 plus the sum of one fiftieth of one per centum of the maximum aggregate proposed offering price including encumbrances on the property which is held or to be held by the real estate investment company.

(c) The filing with the Commission of a registration statement, or of an amendment to a registration statement, shall be deemed to have taken upon the receipt thereof, but the filing of a registration statement shall not be deemed to have taken place unless it is accompanied by a United States postal money order or a certified bank check or a bank cashier's check, or cash for the amount of the fee required under subsection (b).

(d) The information contained in or filed with any registration statement shall be made available to the public under such regulations as the Commission may prescribe, and copies thereof, photostatic or otherwise, shall be furnished to every applicant at such reasonable charge as the Commission may prescribe.

SEC. 7. The registration statement, when relating to an interest in real property or a real estate security, shall contain the information and be accompanied by the documents specified in the Commissioner's regulation, unless the Commissioner determines that such information or document need not be included in respect of any class of owners of an interest in real property or any class of issuers of a real estate security upon a finding by the Commissioner that the requirement of such information or document is inapplicable to such class and that disclosure fully adequate for the protection of investors is otherwise required to be included within the registration statement. If any accountant, engineer, appraiser, or any person whose profession gives authority to a statement made by him is named as having prepared or certified any part of the registration statement, or is named as having prepared or certified a report or valuation for

use in connection with the registration statement, the written consent of such person shall be filed with the registration statement. If any such person is named as having prepared or certified a report or valuation (other than a public official document or statement) which is used in connection with the registration statement, but is not named as having prepared or certified such report or valuation for use in connection with the registration statement, the written consent of such person shall be filed with the registration statement unless the Commissioner dispenses with such filing as impracticable or as involving undue hardship on the person filing the registration statement. Any such registration statement shall contain such other information, and may be accompanied by such other documents, as the Commissioner may by rules and regulations require as being necessary or appropriate in the public interest or for the protection of investors.

SEC. 8. (a) Except as hereinafter provided, the effective date of a registration statement shall be the twentieth day after the filing thereof or such earlier date as the Commissioner may determine, having due regard to the adequacy of the information respecting the issuer or owner theretofore available to the public, to the facility with which the nature of the interests in real property or real estate securities to be registered, their relationship to the capital structure of the owner or issuer, and the rights of holders thereof can be understood, and to the public interest and the protection of investors. If any amendment to any such statement is filed prior to the effective date of such statement, the registration statement shall be deemed to have been filed when such amendment was filed; except that an amendment filed with the consent of the Commission prior to the effective date of the registration statement, or filed pursuant to an order of the Commission, shall be treated as a part of the registration statement.

(b) If it appears to the Commissioner that a registration statement is on its face incomplete or inaccurate in any material respect, the Commissioner may, after notice by personal service or the sending of confirmed telegraphic notice not later than ten days after the filing of the registration statement, and opportunity for hearing (at a time fixed by the Commissioner) within ten days after such notice by personal service or the sending of such telegraphic notice, issue an order prior to the effective date of registration refusing to permit such statement to become effective until it has been amended in accordance with such order. When such statement has been amended in accordance with such order the Commissioner shall so declare and the registration shall become effective at the time provided in subsection (a) or upon the date of such declaration, whichever date is later.

(c) An amendment filed after the effective date of the registration statement, if such amendment, upon its face, appears to the Commissioner not to be incomplete or inaccurate in any material respect, shall become effective on such date as the Commissioner may determine, having due regard to the public interest and the protection of investors.

(d) If it appears to the Commissioner at any time that the registration statement includes any untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading, the Commissioner may, after notice by personal service or the sending of confirmed telegraphic notice, and after opportunity for hearing (at a time fixed by the Commissioner) within fifteen days after such notice by personal service of the sending of such telegraphic notice, issue a stop order suspending the effectiveness of the registration statement. When such statement has been amend-

ed in accordance with such stop order the Commissioner shall so declare and thereupon the stop order shall cease to be effective.

(e) The Commissioner is hereby empowered to make an examination in any case in order to determine whether a stop order should issue under subsection (d). In making such examination the Commissioner or any officer or officers designated by him shall have access to and may demand the production of any books and papers of, and may administer oaths and affirmations to and examine, the owner, issuer, underwriter, or any other person, in respect of any matter relevant to the examination, and may, in its discretion, require the production of a balance sheet exhibiting the assets and liabilities of the issuer, or its income statement, or both, to be certified to by a public or certified accountant approved by the Commission. If the owner or issuer or underwriter shall fail to cooperate, or shall obstruct or refuse to permit the making of an examination, such conduct shall be proper ground for the issuance of a stop order.

(f) Any notice required under this section shall be sent to or served on the owner or issuer or, in case of a foreign government or political subdivision thereof, to or on the duly authorized representative or, in the case of a foreign or Territorial person, to or on its duly authorized representative in the United States named in the registration statement, properly directed in each case by telegraphic notice to the address given in such statement.

SEC. 9. (a) Any person aggrieved by an order of the Commission or the Commissioner may obtain a review of such order in the Court of Appeals of the United States within any circuit wherein such person resides or has his principal place of business, or in the United States Court of Appeals for the District of Columbia, by filing in such court, within sixty days after the entry of such order, a written petition praying that the order of the Commission be modified or be set aside in whole or in part. A copy of such petition shall be forthwith transmitted by the clerk of the court to the Commission, and thereupon the Commissioner shall file in the court the record upon which the order complained of was entered, as provided in section 2112 of title 28, United States Code. No objection to the order of the Commission or Commissioner shall be considered by the court unless such objection shall have been urged before the Commissioner. The finding of the Commission as to the facts, if supported by evidence, shall be conclusive. If either party shall apply to the court for leave to adduce additional evidence, and shall show to the satisfaction of the court that such additional evidence, is material and that there are reasonable grounds for failure to adduce such evidence in the hearing before the Commission, the court may order such additional evidence to be taken before the Commission and to be adduced upon the hearing in such manner and upon such terms and conditions as to the court may seem proper. The Commission may modify its findings as to the facts by reason of the additional evidence so taken, and it shall file such modified or new findings, which, if supported by evidence, shall be conclusive, and its recommendation, if any, for the modification or setting aside of the original order. The jurisdiction of the court shall be exclusive and its judgment and decree, affirming, modifying, or setting aside, in whole or in part, any order of the Commissioner, shall be final, subject to review by the Supreme Court of the United States upon certiorari or certification as provided in sections 346 and 347 of title 28, United States Code.

(b) The commencement of proceedings under subsection (a) shall not, unless specifically ordered by the court, operate as a stay of the Commissioner's order.

SEC. 10. (a) Except to the extent other-

wise permitted or required pursuant to this subsection or subsections (c), (d), or (e)—

(1) a prospectus relating to an interest in real property or a real estate security shall contain information contained in the registration statement;

(2) notwithstanding the provisions of paragraph (1), when a prospectus is used more than nine months after the effective date of the registration statement, the information contained therein shall be as of a date not more than sixteen months prior to such use, so far as such information is known to the user of such prospectus or can be furnished by such user without unreasonable effort or expense; and

(3) there may be omitted from any prospectus any of the information required under this subsection which the Commissioner may by rules or regulations designate as not being necessary or appropriate in the public interest or for the protection of investors.

(b) In addition to the prospectus permitted or required in subsection (a), the Commissioner shall by rules or regulations deemed necessary or appropriate in the public interest or for the protection of investors permit the use of a prospectus (without its being in violation of section 5(b)) which omits in part or summarizes information in the prospectus specified in subsection (a). A prospectus permitted under this subsection shall, except to the extent the Commissioner by rules or regulations deemed necessary or appropriate in the public interest or for the protection of investors otherwise provides, be filed as part of the registration statement but shall not be deemed a part of such registration statement for the purposes of section 11. The Commissioner may at any time issue an order preventing or suspending the use of a prospectus permitted under this subsection, if he has reason to believe that such prospectus has not been filed (if required to be filed as part of the registration statement) or includes any untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which such prospectus is or is to be used, not misleading. Upon issuance of an order under this subsection, the Commissioner shall give notice of the issuance of such order and opportunity for hearing by personal service or the sending of confirmed telegraphic notice. The Commissioner shall vacate or modify the order at any time for good cause or if such prospectus has been filed or amended in accordance with such order.

(c) Any prospectus shall contain such other information as the Commissioner may by rules or regulations require as being necessary or appropriate in the public interest or for the protection of investors.

(d) In the exercise of his powers under subsections (a), (b), and (c), the Commissioner shall have authority to classify prospectuses according to the nature and circumstances of their use or the nature of the security, issue, issuer, or otherwise, and, by rules and regulations and subject to such terms and conditions as he shall specify therein, to prescribe as to each class the form and contents which he may find appropriate and consistent with the public interest and the protection of investors.

(e) The statements or information required to be included in a prospectus by or under authority of subsections (a), (b), (c), and (d), when written, shall be placed in a conspicuous part of the prospectus and, except as otherwise permitted by rules or regulations, in type as large as that used generally in the body of the prospectus.

(f) In any case where a prospectus consists of a radio or television broadcast, copies thereof shall be filed with the Commissioner under such rules and regulations as it shall prescribe. The Commissioner may by rules and regulations require the filing with the

Commission of forms and prospectuses used in connection with the offer or sale of securities registered under this Act.

Sec. 11. (a) In case any part of the registration statement, when such part became effective, contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein not misleading, any person acquiring such an interest in real property or real estate security (unless it is proved that at the time of such acquisition he knew of such untruth or omission) may, either at law or in equity, in any court of competent jurisdiction, sue—

(1) every person who signed the registration statement;

(2) every person who was a director (or person performing similar functions) of, or partner in or with, the owner or issuer at the time of the filing of the part of the registration statement with respect to which his liability is asserted;

(3) every person who, with his consent, is named in the registration statement as being or about to become a director, person performing similar functions, or partner;

(4) every accountant, engineer, investment manager, broker, dealer, issuer dealer, developer, closing agent, insurer, issuer, underwriter, or appraiser, or any person whose profession gives authority to a statement made by him, who has with his consent been named as having prepared or certified any part of the registration statement, or as having prepared or certified any report or valuation which is used in connection with the registration statement, with respect to the statement in such registration statement, report, or valuation which purports to have been prepared or certified by him; and

(5) every underwriter, owner, issuer, or broker-dealer with respect to such interest in real property or real estate security. The right of recovery under this subsection shall be conditioned on proof that such person acquired the interest in real property or the real estate security relying upon such untrue statement in the registration statement or relying upon the registration statement and not knowing of such omission, but such reliance may be established without proof of the reading of the registration statement by such person.

(b) Notwithstanding the provisions of subsection (a) no person, other than the owner or issuer, shall be liable as provided therein if he sustains the burden of proof—

(1) that before the effective date of the part of the registration statement with respect to which his liability is asserted (A) he had resigned from or had taken such steps as are permitted by law to resign from, or ceased or refused to act in, every office, capacity, or relationship in which he was described in the registration statement as acting or agreeing to act, and (B) he had advised the Commissioner and the owner issuer in writing that he had taken such action and that he would not be responsible for such part of the registration statement; or

(2) that if such part of the registration statement became effective without his knowledge, upon becoming aware of such fact he forthwith acted and advised the Commissioner in accordance with paragraph (1), and, in addition, gave reasonable public notice that such part of the registration statement had become effective without his knowledge; or

(3) that (A) as regards any part of the registration statement not purporting to be made on the authority of an expert, and not purporting to be a copy of or extract from a report or valuation of an expert, and not purporting to be made on the authority of a public official document or statement, he had, after reasonable investigation, reasonable ground to believe and did believe, at the time such part of the registration statement became effective, that the statements

therein were true and that there was no omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading; and (B) as regards any part of the registration statement purporting to be made upon his authority as an expert or purporting to be a copy of or extract from a report or valuation of himself as an expert, (i) he had, after reasonable investigation, reasonable ground to believe and did believe, at the time such part of the registration statement became effective, that the statements therein were true and that there was no omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading, or (ii) such part of the registration statement did not fairly represent his statement as an expert or was not a fair copy of or extract from his report or valuation as an expert; and (C) as regards any part of the registration statement purporting to be made on the authority of an expert (other than himself) or purporting to be a copy of or extract from a report or valuation of an expert (other than himself), he had no reasonable ground to believe and did not believe, at the time such part of the registration statement became effective, that the statements therein were untrue or that there was an omission to state a material fact required to be stated therein or necessary to make the statements therein misleading, or that such part of the registration statement did not fairly represent the statement of the expert or was not a fair copy of or extract from the report or valuation of the expert; and (D) as regards any part of the registration statement purporting to be a statement made by an official person or purporting to be a copy of or extract from a public official document, he had no reasonable ground to believe and did not believe, at the time such part of the registration statement became effective, that the statements therein were untrue, or that there was an omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading, or that such part of the registration statement did not fairly represent the statement made by the official person or was not a fair copy of or extract from the public official document.

(c) In determining, for the purpose of paragraph (3) of subsection (b), what constitutes reasonable investigation and reasonable ground for belief, the standard of reasonableness shall be that required of a prudent man in the management of his own property.

(d) If any person becomes an underwriter with respect to real estate securities after the part of the registration statement with respect to which his liability is asserted has become effective, then for the purposes of paragraph (3) of subsection (b) such part of the registration statement shall be considered as having become effective with respect to such person as of the time when he became an underwriter.

(e) The suit authorized under subsection (a) may be to recover such damages as shall represent the difference between the amount paid for the interest in real property or real estate security (not exceeding the price at which the interest in real property or real estate security was offered to the public) and (1) the value thereof as of the time such suit was brought, or (2) the price at which such interest in real property or real estate security shall have been disposed of in the market before suit, or (3) the price at which such interest in real property or real estate security shall have been disposed of after suit but before judgment if such damages shall be less than the damages representing the difference between the amount paid for the interest in real property or real estate security (not exceeding the price at which the interest in real property or real estate security was offered to

the public) and the value thereof as of the time such suit was brought: Provided, That if the defendant proves that any portion or all of such damages represents other than the depreciation in value of such interest in real property or real estate security resulting from such part of the registration statement, with respect to which his liability is asserted, not being true or omitting to state a material fact required to be stated therein or necessary to make the statements therein not misleading, such portion or all of such damages shall not be recoverable. In no event shall any underwriter (unless such underwriter shall have knowingly received from the issuer for acting as an underwriter some benefit, directly or indirectly, in which all other underwriters similarly situated did not share in proportion to their respective interests in the underwriting) be liable in any suit or as a consequence of suits authorized under subsection (a) for damages in excess of the total price at which the interest in real property or real estate security underwritten by him and distributed to the public were offered to the public. In any suit under this or any other section of this Act the court may, in its discretion, require an undertaking for the payment of the costs of such suit, including reasonable attorney's fees, and if judgment shall be rendered against a party litigant, upon the motion of the other party litigant, such costs may be assessed in favor of such party litigant (whether or not such undertaking has been required) if the court believes the suit or the defense to have been without merit, in an amount sufficient to reimburse him for the reasonable expenses incurred by him, in connection with such suit, such costs to be taxed in the manner usually provided for taxing of costs in the court in which the suit was heard.

(f) All or any one or more of the persons specified in subsection (a) shall be jointly and severally liable, and every person who becomes liable to make any payment under this section may recover contribution as in cases of contract from any person who, if sued separately, would have been liable to make the same payment, unless the person who has become liable was, and not guilty of fraudulent misrepresentation.

(g) In no case shall the amount recoverable under this section exceed the price at which the security was offered to the public.

Sec. 12. Any person who—

(1) offers or sells an interest in real property or a real estate security in violation of section 5, or

(2) offers or sells an interest in real property or a real estate security (whether or not exempted by the provisions of section 3, other than paragraph (2) of subsection (a) thereof), by use of any means or instruments of transportation or communication in interstate commerce or of the mails, by means of a prospectus or oral communication which includes an untrue statement of a material fact or omits to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading (the purchaser not knowing of such untruth or omission), and does not sustain the burden of proof that he did not know, and in the exercise of reasonable care could not have known, of such untruth or omission, shall be liable to the person purchasing such security from him, who may sue either at law or in equity in any court of competent jurisdiction to recover the consideration paid for such interest in real property or real estate security with interest thereon, less the amount of any gain received thereon, upon the tender of such interest in real property or real estate security.

Sec. 13. No action shall be maintained to enforce any liability created under section 11 or section 12 (2) unless brought within one year after the discovery of the untrue statement or the omission, or after such discovery

should have been made by the exercise of reasonable diligence, or to enforce a liability created under section 12 (1), unless brought within one year after the violation upon which it is based. In no event shall any such action be brought to enforce a liability created under section 11 or section 12 (1) more than three years after the interest in real property or real estate security was bona fide offered to the public, or under section 12 (2) more than three years after the sale.

Sec. 14. Any condition, stipulation, or provision binding any person acquiring any interest in real property or real estate security to waive compliance with any provision of this Act or of the rules and regulations of the Commission shall be void.

Sec. 15. Every person who, by or through ownership, agency, or otherwise, or who, pursuant to or in connection with an agreement or understanding with one or more persons by or through ownership, agency, or otherwise, controls any person liable under section 11 or 12, shall also be liable jointly and severally with and to the same extent as such controlled person to any person to whom such controlled person is liable, unless the controlling person had no knowledge of or reasonable grounds to believe in the existence of the facts by reason of which the liability of the controlled person is alleged to exist.

Sec. 16. (a) It shall be unlawful for any person in the offer or sale of any interests in real property or real estate securities by the use of any means or instruments of transportation or communication in interstate commerce or by the use of the mails, directly or indirectly—

(1) to employ any device, scheme, or artifice to defraud, or

(2) to obtain money or property by means of any untrue statement of a material fact or any omission to state a material fact necessary in order to make statements made, in the light of the circumstances under which they were made, not misleading, or

(3) to engage in any transaction, practice, or course of business which operates or would operate as a fraud or deceit upon the purchaser.

(b) It shall be unlawful for any person, by the use of any means or instruments of transportation or communication in interstate commerce or by the use of the mails, to publish, give publicity to, or circulate any notice, circular, advertisement, newspaper, article, letter, investment service, or communication which, though not purporting to offer an interest in real property or a real estate security for sale, describes such security for a consideration received or to be received, directly or indirectly, from an issuer, underwriter, or dealer, without fully disclosing the receipt, whether past or prospective, of such consideration and the amount thereof.

(c) The exemptions provided in section 3 shall not apply to the provisions of this section.

Sec. 17. (a) It shall be unlawful for any person to use any means or instruments of transportation or communication in interstate commerce, or to use the mails, directly or indirectly—

(1) to sell or offer to sell, buy or offer to buy, solicit prospective sellers or purchasers of, solicit or obtain listings of, or negotiate the purchase, sale, or exchange of interests in real property on the behalf of another or others, for a compensation or in expectation of a compensation;

(2) to lease or rent or offer to lease or rent, or place for rent or solicit listings of places to rent, or solicit for prospective tenants, or negotiate the sale, purchase, or exchange of leases on real property, or collect rents from real property or improvements thereon, on the behalf of another or others, for a compensation or in expectation of a compensation;

(3) to solicit borrowers or lenders for or

negotiate loans or collect payments or perform services for borrowers or lenders or note owners in connection with loans secured directly or collaterally by real property securities, for a compensation or in expectation of a compensation; or

(4) to sell or offer to sell, buy or offer to buy, or exchange or offer to exchange a real property sales contract, promissory note, or mortgage, secured by real property, for another or others, for a compensation or in expectation of a compensation; unless such person was a duly licensed Federal real estate broker under this Act prior to and during the conduct of the activities described in paragraphs (1), (2), (3), and (4) of subsection (a) and unless all other provisions of this Act have been complied with.

(b) It shall be unlawful for any person to use any means or instruments of transportation or communication in interstate commerce, or to the mails, directly or indirectly—

(1) to sell or offer to sell, buy or offer to buy, solicit prospective sellers or purchasers of, or negotiate the purchase sale or exchange of real estate securities on the behalf of another or others, for a compensation or in expectation of a compensation; or

(2) to engage in the business of buying and selling real estate securities for his own account;

unless such person was a duly licensed Federal dealer under this Act prior to and during the conduct of the activities described in paragraphs (1) and (2) of subsection (b) and all other provisions of this Act have been complied with.

(c) It shall be unlawful for any person to use any means or instruments of transportation or communication in interstate commerce, or to use the mails, directly or indirectly to engage in the business of buying and selling real estate for his own account unless such person was a duly licensed federal developer under this Act prior to and during the conduct of the activities described in this subsection and unless all other provisions of this Act have been complied with.

(d) It shall be unlawful for any person to use any means or instruments of transportation or communication in interstate commerce, or to use the mails, directly or indirectly, to issue and sell or offer for sale any real estate security unless such person was a duly licensed federal issuer dealer under this Act prior to such sale or offer of sale.

(e) It shall be unlawful for any person to use any means or instruments of transportation or communication in interstate commerce, or to use the mails, directly or indirectly.

(1) to invest or exchange money or property in an interest in real property or real estate securities on behalf of another or others for compensation or in expectation of compensation

(2) to give advice on investment in an interest in real property or real estate securities to another or others for a compensation or in expectation of a compensation;

(3) to manage, control or otherwise direct real property or real estate securities belonging, directly or indirectly, to another or others; or

(4) to act as a manager, general partner, trustee or otherwise manage or direct operations of a real estate investment company, unless such person was a duly licensed federal investment manager under this Act prior to and during the activities described in subsections (1), (2) and (3) of subsection (e) and unless all other provisions of this Act have been complied with.

(f) It shall be unlawful for any person to use any means or instruments of transportation or communication in interstate commerce, or to use the mails, directly or indirectly to engage in the business of conducting appraisals of value of interests in real property or of real estate securities for an-

other or others, for compensation or in expectation of compensation, unless such person is duly licensed as a federal real estate appraiser under this Act and unless all other provisions of this Act are complied with.

(g) It shall be unlawful for any person to use any means or instruments of transportation or communication in interstate commerce, or to use the mails, directly or indirectly to perform any of the activities of the transfer of title or interests in title to real property or real estate securities, unless such person is duly licensed as a federal closing agent under this Act and unless all other provisions of this Act are complied with.

(h) It shall be unlawful for any person to use any means or instruments of transportation or communication in interstate commerce, or to use the mails, directly or indirectly to insure or guarantee the condition of title to an interest in real property or real estate securities, unless such person is duly licensed as an insurer under this Act and unless all other provisions of this Act are complied with.

SEC. 18. (a) The Commission shall grant licenses under this Act to persons found qualified by the Commission to act (in the case of any such person) as—

- (1) a federal real estate broker,
- (2) a federal securities dealer,
- (3) an issuer dealer,
- (4) a federal real estate developer,
- (5) a federal investment manager,
- (6) a federal real estate appraiser,
- (7) a federal closing agent, or
- (8) an insurer.

(b) The Commission shall determine in its qualification evaluation under subsection (a) (before granting a license under such subsection to any person) that—

- (1) the person is of good character and business repute;
- (2) the person has a formal education or its equivalent in the field of endeavor permitted under the license to be granted;
- (3) the person is at least 21 years of age and is a citizen of the United States;
- (4) the person (as demonstrated to the Commission, by written examination if the Commission so requests) has the proficiency to perform the activities permitted under the license to such a degree that his operations under the license will be of service to the people and a credit to the industry;
- (5) the person has submitted an application to the Commission on a form prescribed by it and has paid an unrefundable application fee of \$50; and
- (6) the person has sworn an oath of allegiance to the United States of America.

(c) The Commission shall suspend or revoke any license granted by it—

- (1) if it is discovered within two years of the date of issuance of such license that any information submitted by the applicant for such license was false or misleading, or that a material fact which could have caused denial of such application for license was omitted, or
- (2) if the licensee is adjudged to have committed a fraud in any civil action, or
- (3) if the licensee is found guilty of any crime involving moral turpitude and a fine of \$500 or more, or
- (4) if the licensee fails to exercise proper supervision of any agents employed by him, or
- (5) if the licensee permits his license to be used by other persons, or
- (6) if the licensee is no longer a citizen of the United States, or if the licensee or any of his agents takes part or becomes involved in any political activity calculated to cause, or resulting in, any public disorder, or any activity directed to the overthrow of the government of the United States.

SEC. 19. In the event the licensee or applicant is a corporation—

- (1) each and every officer (other than members of the licensee's family who do not

perform any activities for which a license is required under this Act) shall be required to hold a license under this Act, and

(2) each and every officer shall be jointly and severally liable for violations of this Act, both civil and criminal.

SEC. 20. Nothing in this Act shall effect the jurisdiction of the securities commission (or any agency or office performing like functions) of any State or Territory of the United States, or the District of Columbia, over any security or any person.

SEC. 21. (a) The Commission (or Commissioner) shall have authority from time to time to make, amend, and rescind such rules and regulations as may be necessary to carry out the provisions of this Act. Among other things, the Commission shall have authority for the purposes of this Act, to prescribe the form or forms in which required information shall be set forth. The rules and regulations of the Commission shall be effective upon publication in the manner in which the Commission shall prescribe. No provision of this Act imposing any liability shall apply to any act done or omitted in good faith in conformity with any rule or regulation of the Commission, notwithstanding that such rule or regulation may, after such act or omission, be amended or rescinded or be determined by judicial or other authority to be invalid for any reason.

(b) For the purpose of all investigations which, in the opinion of the Commission, are necessary and proper for the enforcement of this Act, any member of the Commission or any officer or officer designated by it is empowered to administer oaths and affirmations, subpoena witnesses, take evidence, and require the production of any books, papers, or other documents which the Commission deems relevant or material to the inquiry. Such attendance of witnesses and the production of such documentary evidence may be required from any place in the United States or any Territory at any designated place of hearing.

SEC. 22. (a) Whenever it shall appear to the Commission, either upon complaint or otherwise, that the provisions of this Act, or of any rule or regulation prescribed under authority thereof, have been or are about to be violated, it may, in its discretion, either require or permit such person to file with it a statement in writing, under oath, or otherwise, as to all the facts and circumstances concerning the subject matter which it believes to be in the public interest to investigate, and may investigate such facts.

(b) Whenever it shall appear to the Commission that any person is engaged or about to engage in any acts or practices which constitute or will constitute a violation of the provisions of this Act, or of any rule or regulation prescribed under authority thereof, it may in its discretion bring an action in any district court of the United States, the United States court of any Territory, or the United States District Court for the District of Columbia to enjoin such acts or practices, and upon a proper showing a permanent or temporary injunction or restraining order shall be granted without bond. The Commission may transmit such evidence as may be available concerning such acts or practices to the Attorney General who may, in his discretion, institute the necessary criminal proceedings under this Act. Any such criminal proceeding may be brought either in the district wherein the transmittal of the prospectus or security complained of begins, or in the district wherein such prospectus or security is received.

(c) Upon application of the Commission the district courts of the United States, the United States courts of any Territory, and the United States District Court for the District of Columbia shall also have jurisdiction to issue writs of mandamus commanding any person to comply with the provisions of this Act or any order of the Commission made in pursuance thereof.

SEC. 23. All hearings shall be public and

may be held before the Commission or an officer or officers of the Commission designated by it, and appropriate records thereof shall be kept.

SEC. 24. The rights and remedies provided by this Act shall be in addition to any and all other rights and remedies that may exist at law or in equity.

SEC. 25. (a) The district courts of the United States, the United States courts of any Territory, and the United States District Court for the District of Columbia shall have jurisdiction of offenses and violations under this Act and under the rules and regulations promulgated by the Commission in respect thereto, and, concurrent with State and Territorial courts, of all suits in equity and actions at law brought to enforce any liability or duty created by this Act. Any such suit or action may be brought in the district wherein the defendant is found or is an inhabitant or transactions business, or in the district where the alleged violation took place, if the defendant participated therein, and process in such cases may be served in any other district of which the defendant is an inhabitant or wherever the defendant may be found. Judgments and decrees so rendered shall be subject to review as provided in sections 225 and 347 of title 28, United States Code. No case arising under this Act and brought in any State court of competent jurisdiction shall be removed to any court of the United States. No costs shall be assessed for or against the Commission in any proceeding under this Act brought by or against it in the Supreme Court or such other courts.

(b) In case of contumacy or refusal to obey a subpoena issued to any person, any of such United States courts within the jurisdiction of which the person guilty of contumacy or refusal to obey is found or resides, upon application by the Commission, may issue to such person an order requiring such person to appear before the Commission, or one of its examiners designated by it, there to produce documentary evidence if so ordered, or there to give evidence touching the matter in question; and any failure to obey such order of the court may be punished by said court as a contempt thereof.

(c) No person shall be excused from attending and testifying or from producing books, papers, contracts, agreements, and other documents before the Commission, or in obedience to the subpoena of the Commission or any member thereof or any officer designated by it, or in any cause or proceeding instituted by the Commission, on the ground that the testimony or evidence, documentary or otherwise, required of him, may tend to incriminate him or subject him to a penalty or forfeiture; but no individual shall be prosecuted or subjected to any penalty or forfeiture for or on account of any transaction, matter, or thing concerning which he is compelled, after having claimed his privilege against self-incrimination, to testify or produce evidence, documentary or otherwise, except that such individual so testifying shall not be exempt from prosecution and punishment for perjury committed in so testifying.

SEC. 26. Neither the fact that the registration statement for an interest in real property or a real estate security has been filed or is in effect nor the fact that a stop order is not in effect with respect thereto shall be deemed a finding by the Commission that the registration statement is true and accurate on its face or that it does not contain an untrue statement of fact or omit to state a material fact, or be held to mean that the Commission has in any way passed upon the merits of, or given approval to, such interest in real property or a real estate security. It shall be unlawful to make, or cause to be made, to any prospective purchaser, any representation contrary to the foregoing provisions of this section.

SEC. 27. Any person who willfully violates

any of the provisions of this Act, or the rules and regulations promulgated by the Commission or Commissioner under authority thereof, or any person who willfully makes any untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements herein not misleading, shall upon conviction be fined not more than \$5,000 or imprisoned not more than five years, or both.

Sec. 28. Nothing in this Act shall relieve any person from submitting to the respective supervisory units of the Government of the United States information, reports, or other documents that are now or may hereafter be required by any provision of law.

Sec. 29. Qualification under this Act shall constitute an exemption from the Securities Act of 1933, and be concurrent with the jurisdiction of the Securities Exchange Act of 1934 and the Investment Advisors Act of 1940.

Sec. 30. Title XIV of the Housing and Urban Development Act of 1968 (the Interstate Land Sales Full Disclosure Act) is repealed.

Sec. 31. If any provision of this Act, or the application of such provision to any person or circumstance, shall be held invalid, the remainder of this Act, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

Sec. 32. Any person in possession of a license from any State, territory, or possession, or in possession of a principal's license from the National Association of Securities Dealers, may apply in writing within one year of the effective date of this Act, and receive a waiver of any written examination for a license under this Act if such license does not grant him the right to engage in activities not encompassed by his existing license. This section shall expire one year from the effective date of this Act.

IT IS TIME TO ADOPT PROGRAM FOR CONVERSION TO METRIC SYSTEM

(Mr. McCLODY asked and was given permission to address the House for 1 minute and to revise and extend his remarks and include extraneous matter.)

Mr. McCLODY. Mr. Speaker, on December 14, 1971, I introduced H.R. 12307, a bill to establish a program for the United States to convert to the metric system.

Under Public Law 90472, approved August 9, 1968, the Secretary of Commerce was authorized to undertake a 3-year study to determine advantages and disadvantages of increased use of the metric system in the United States.

The final report was issued in July, 1971 and contained several recommendations for conversion to the metric system; however, no specific legislative proposal was set forth. Prior to the publication of the National Bureau of Standards Report there were many who felt that this study would provide the requisite impetus for beginning the process of conversion.

But, Mr. Speaker, that impetus must come from the Congress, 70 years ago, a bill was brought before the Congress to make the metric system mandatory. It was narrowly defeated. The same proposal was made 4 years later, in 1906, and again was narrowly defeated. In 1938, another effort was made in both Houses of Congress—only to fail again. Meanwhile, the rest of the civilized world was going metric.

Mr. Speaker, the time has come for the United States to join the rest of the

world. If we fail to seize the moment now we may well find ourselves in the year 2000 still using conversion tables and still losing valuable world trade to nations offering goods in metric measurements. I would refer my colleagues to a 1965 committee print by the House Committee on Science and Astronautics which points out that new nations are going metric, as in Africa, and they need products which they can use and repair. We are going to miss out on this valuable foreign trade if we cannot give these customers what they want.

Mr. Speaker, I intend to press vigorously for legislation which will set up orderly procedures for transition to the metric system, and I ask unanimous consent to insert the text of the metric conversion bill in the form in which I propose to reintroduce it.

H.R. 12555

A bill to establish a program for the United States to convert to the metric system

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is established, under the general auspices of the Secretary of Commerce, the United States Metric Conversion Coordinating Commission (hereinafter referred to as the "Commission"). The Commission shall have nine members, to be appointed by the President, who shall represent (a) business, (b) labor, (c) education, (d) science, and (e) technology. Each member shall be compensated at the rate of \$100 a day each day during which he is engaged in the business of the Commission and shall receive travel expenses while away from his home or regular place of business in the service of the Commission, as a person intermittently employed in the Government service, under section 5703(b) of title 5, United States Code. Members of Congress or other Federal employees shall not be entitled to such compensation but shall be reimbursed for expenses incurred while in the service of the Commission. Each member shall have a five-year term and may be reappointed by the President.

SEC. 2. The Commission is charged with the responsibility of implementing, with the voluntary participation of every interested sector and group in the United States, the recommendations of the United States metric study, undertaken pursuant to the Act approved August 9, 1968, including—

(1) that the United States change to the international metric system deliberately and carefully;

(2) that this be done through a coordinated national program;

(3) that detailed plans and timetables be worked out, within the guiding framework established and from time to time revised by the Commission, by the various sectors and interests of the society themselves;

(4) that priority be given to an educational program to be carried out in the Nation's elementary and secondary schools and institutions of higher learning, as well as with the public at large, designed to enable all Americans to think and work in metric terms;

(5) that the appropriate representatives of American enterprise participate in international standards activities;

(6) that in order to encourage efficiency and minimize the overall costs to society, the general rule should be that any change-over costs shall lie where they fall; and

(7) that the target date for full conversion shall be January 1, 1983.

SEC. 3. Each agency, entity, and authority of the Federal Government is authorized and directed to convert to the international metric system as soon as possible, and to cooperate fully with the Commission in all respects.

SEC. 4. On and after January 1, 1983, the

sole official system of weights and measures in the United States shall be the International metric system.

SEC. 5. The Commission shall transmit to the President and to each House of Congress an interim report not later than one year after the date of enactment of this Act. Interim reports shall be likewise submitted each year thereafter until January 1, 1983.

SEC. 6. There are hereby authorized to be appropriated out of any money in the Treasury not otherwise appropriated such amounts as are required to carry out the provisions of this Act.

THE PROPOSED FEDERAL BUDGET FOR FISCAL YEAR 1973

The SPEAKER pro tempore (Mr. ROUSH). Under a previous order of the House, the gentleman from Ohio (Mr. VANIK) is recognized for 10 minutes.

Mr. VANIK. Mr. Speaker, in reviewing the Federal budget for fiscal year 1973 submitted to the Congress today, all of our comments must bear in mind the enormity of the Federal deficit for fiscal year 1972 and 1973.

While official records remain to be tabulated, it appears quite evident that the imbalance in Federal revenues and expenditures puts the American dollar on a shaky ground at home—and in an even more precarious condition abroad.

The welfare of the American people is directly dependent on the credibility of the currency of the land, and the currency of the land reflects the good health or ill health of the issuer.

It is easy enough to complain about the size of the Federal deficit and every Member of Congress has his selected list of targets for spending reduction or spending expansion. It is for the Congress of the United States to look at the entire range of Federal programs and decide which must continue and what expenditures must be curtailed or eliminated.

No one, in his right mind, expects that the Congress of the United States will agree to a defense expenditure of \$83 billion. A \$15 billion cutback could be brought about without, in any way, imperiling the basic security of the Nation. Defense cutbacks could provide for the elimination of such frills as the \$1 billion B-1 manned bomber, and the leadtime procurement items on the \$1 billion aircraft carrier, and continued large purchases of overly complex and fantastically expensive jet aircraft such as the F-14 and F-15. In addition, development of the ABM is proceeding full speed ahead at an expenditure level of about a billion dollars, without waiting for the results of the President's trips to Peking and Moscow. Further savings could be achieved by the reduction of our military spending abroad for the stationing of troops in Europe and Asia.

It is shocking that with the winding down of the war in Southeast Asia, that the Department of Defense projects almost no reduction in manpower. According to the budget, Department of Defense manpower at the end of this fiscal year will be 2,391,796 personnel. At the end of the fiscal year 1973, it will be down only about 34,000 to 2,358,037. This is offset by an increase in the size of the

Reserves of about 10,000 men. The budget further provides for increases in military foreign aid—with considerable aid to repressive military dictatorships.

The sum of \$68 billion is a respectable defense expenditure which, if properly spent, could provide a more effective defense machinery than the present unnecessary deployment of American troops in Asia and in Europe and the extravagant acquisition of unnecessary weapons systems.

Four and a half billion dollars could be saved in the elimination of Federal programs for excessive irrigation, soil-bank and crop subsidies programs for sugar, wheat, cotton, wool, tobacco, peanuts, milk, and feed grains.

Other, expanded and unnecessary subsidies are continued in the budget. For example, ship construction subsidies are up and are designed to benefit certain oil companies—companies which already pay almost no Federal income tax. A quarter of a billion dollars could be cut from this program.

Several major Corps of Engineers public work projects should be cut for an immediate saving of millions of dollars and a long-range savings of billions of dollars. For example, the new budget contains additional funds for the Tennessee-Tombigbee Canal project—a project described as an effort to turn the Mississippi River into a two-lane river.

In addition to these expenditure savings, the deficit could be nearly eliminated by effective tax reform and tax adjustments.

If the present system of oil quotas for imported oil were converted to a tariff system, revenues could be increased about \$1.5 billion a year. Imposition of a tax on capital gains at death would increase public revenues by \$3.5 billion per year.

Tax recovery for excessive oil depletion over actual costs could save a billion dollars, while a shift of the financing of mass transit programs from the taxpayer to the highway trust fund could save another billion dollars.

A tax on the excess of depreciation on real assets over the actual costs of assets would provide a recovery for the Treasury in the sum of \$1½ billion.

The application of interest equalization tax on the foreign investment of corporations and their subsidies, except for point-4 countries could yield almost another billion dollars.

Additional tax reform bills have been introduced which would close an unjustifiable \$11 billion in tax loopholes, increase tax equity, and help eliminate the deficit.

Deficit reduction of this dimension would provide an adequate defense, a sustained support for solving social problems, the protection of our environment and substantial educational support. A deficit reduction of this dimension would reestablish the dollar at home as well as abroad and insure the stability of the domestic economy.

The important thing in establishing priorities, is to direct expenditures to human needs and to those forces which stimulate the economy rather than those which are nonproductive.

THE PRESIDENT'S 1973 BUDGET

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Ohio (Mr. Bow) is recognized for 30 minutes.

Mr. BOW. Mr. Speaker, today the President sent to the Congress his proposed budget for fiscal year 1973. In his message transmitting the budget, the President explains the reasons for his proposals and the basic principles which guide his budget policy; he asks that the Congress support the proposals set forth in the budget. I believe that the underlying principles reflected in the President's budget recommendations are sound, and I urge the House to adopt them; the particular program recommendations should also have the support of the Congress.

The objective of the 1973 budget is, in the President's words, "a new prosperity for all Americans without the stimulus of war and without the drain of inflation." The administration is pursuing this objective through a number of different policies—all facets of the new economic policy introduced on August 15 of last year; its fiscal policy is an integral part of the overall program.

The full-employment budget concept is central to the budget policy proposed by the President. It holds that, except in emergency conditions, expenditures should not exceed the level at which the budget would be balanced under conditions of full employment. The proposed 1973 budget conforms to this guideline, with the result that it will provide necessary stimulus for expansion, but will not be inflationary. At a time when the economy still has some slack but when we are not yet very far from a most serious bout with inflation, this is the right approach to determine what total Federal spending should be.

The full-employment budget guideline calls for a tight rein on spending in 1973. Proposed outlays of \$246.3 billion represents only a 4.1 percent increase over the 1972 level. This is less than half the average annual rate of increase—8.6 percent—over the previous 3 years of this administration, which in turn compares favorably with an annual average 14.7 percent increase for the 3 years 1965 to 1968 under the previous administration. The reason for this significant reduction in the rate of increase in Government spending lies in the President's conviction that we must keep expenditures within full-employment revenues and also that we should consistently try to lower those revenues through tax reductions which leave with the individual citizen more freedom to choose how his money will be spent and his life be lived. Thus, tax changes made during this administration have reduced 1973 full-employment revenues by almost \$20 billion. That money is available to individuals to be used as they wish; had the rate of increase in spending sustained by the previous administration been continued, the Government would have had to take that \$20 billion in taxes, and more besides, to finance its programs.

This substantial reduction in tax rates, made possible by exerting strong downward pressure on the rate of in-

crease in Government spending, is indicative of one of the President's highest priority objectives, one which should command the attention of the Congress as well: Decentralizing power—economic and political—away from Washington and the Federal bureaucracy and relocating it in State and local governments, which are closer to the people, or, better yet, in the people themselves. This policy is reflected in the overall budget total, constrained by the substantial tax reductions I have just discussed, and also in the specific programmatic proposal for revenue sharing.

The 1973 budget allocates \$5.3 billion for the President's general revenue-sharing program. Authorization of six special revenue-sharing programs is also requested, two of which—urban community development and education—are proposed to be effective in 1973. The general revenue-sharing program is consistent with the proposal that was made originally in the 1972 budget 12 months ago. The issue, as the President notes in his message, has been before the Congress for long enough, and it is now up to the Congress to take prompt action on it. The need for action becomes more pressing with every passing day as the fiscal crisis of our State and local governments mounts. These are the governments which are closest to the people and most responsive to the varied needs of their constituents. By passing the President's revenue-sharing proposal, we will be putting those governments on a sounder footing, enabling them to take advantage of the flexibility of the federal system. The generous funding which the President has allocated to this revenue-sharing proposal is indicative of the high priority which he attaches to returning power to the people.

Another proposal stressed in the President's message is also designed to make government more responsive to the needs of all citizens. The President asks for prompt action on his program to reorganize the executive branch of the Federal Government, which was submitted to the Congress last March. By streamlining the bureaucracy and clearly identifying lines of responsibility for the development and administration of Government programs, the reorganization would enable the Government to deliver more services to the people for each dollar collected from taxpayers, and it would strengthen the control of both the President and the Congress, and ultimately the people, over what is now a remote and entangled Federal bureaucracy.

These then are the three principal means which the President proposes in his budget and legislative program for returning the power concentrated in Washington to the people. First, the overall budget policy of holding down the growth in Government spending, thus obviating the need to raise taxes and restraining inflation, which is but another form of tax. Second, revenue sharing, which will locate more political and economic power in governments closer to the individual citizen. And, third, reorganization of the Federal executive branch, which will make the Government more responsive to the peoples' will.

Another high priority in the President's program, which is stressed in his budget message, is the need to "create peaceful world order." The President stresses the importance of providing adequate funding for our national defense programs so that we will be able to negotiate with other countries from a position of strength and protect our vital interests wherever they may be threatened.

While our program of Vietnamization has reduced the expenditures required for the Department of Defense below what they would otherwise be, in other areas it is imperative that we strengthen and modernize our defense posture. For this reason, the President has proposed a \$6.3 billion increase in budget authority for military programs over the 1972 figure, and his message could not be more forceful in stressing the importance of affirmative congressional action on his entire request.

The cuts which the Congress has made in the administration's defense appropriations bills over the last 2 years simply must not be repeated. We can afford to maintain our strength; what we cannot afford is to have to catch up with other countries if we should fall behind. This administration is conscious of the need to meet pressing domestic needs; that is why it proposes spending 45 percent of the budget on human resource programs and only 32 percent on defense programs—an allocation of resources which exactly reverses those of the prior administration in 1968. But it also knows that there can be no progress for America at home without progress for the world abroad, and that progress for the world abroad depends on the establishment of a peaceful world order. That peaceful world order in turn depends on the maintenance of American military strength which is second to none.

The final objective of the 1973 budget which is stressed in the President's message is "to direct the resources of the Federal Government toward those needs the American people most want met and toward the people who are most in need."

With limited resources, hard choices had to be made with respect to the funding levels of domestic programs. Substantial increases were allowed only to the few of utmost importance. Nonetheless, a number of high priority areas where generous funding is necessary or new legislation is proposed to reform the Government's role should be singled out. The 1973 budget gives emphasis to the following subjects:

First. Welfare reform. Welfare reform has been before the Congress for over 2 years. It has been debated throughout the entire country, had stood the test of public scrutiny, and gained widespread national support. The budget proposes an appropriation of \$450 million to start the replacement of the present inadequate welfare system with the new "workfare." The new system is expensive to initiate, but the cost in human terms of continuing with the existing system is far greater.

This body, of course, is not to blame for the delay in enactment of the welfare reform proposal, inasmuch as we have twice sent legislation on this subject to the Senate only to see it languish.

I would hope, as the President expresses in his message, that we will soon make this program a reality; the budget proposes adequate funding for transition to the new system, and further delay cannot be justified.

Second. Schools. Schools which have been affected by the need to desegregate require emergency assistance to assure that the quality of education they provide is maintained. The 1973 budget proposes to spend \$1 billion to this end. Nothing could speak more clearly of the administration's concern for assuring equal education opportunity for all children. Again, the House has acted on the authorization for this program which is now before the Senate. The budget anticipates its final enactment and provides the necessary funding.

Third. Aging. The aging are owed a greater opportunity for dignity and economic independence. In the past, this administration has been generous in proposing increases for programs which benefit the elderly, and the 1973 budget is consistent with this history. It would provide total spending of \$50 billion for the benefit of the elderly in 1973, \$6 billion more than in the current year and \$16 billion more than in 1969. Particularly important in this area is the proposed fivefold increase in the amount budgeted for the Administration on Aging, which will bring that office's program up to \$100 million.

Fourth. Drug abuse prevention. The budget proposes continued expansion of programs for treatment, rehabilitation and law enforcement in the area of drug abuse. This is certainly one of our major national problems, and the extent to which the administration has committed scarce resources to deal with it indicate its concern.

Funding for all aspects of the drug abuse prevention program will rise substantially over the current year to a level five times that of 1970. This is necessary if we are to deal with this problem effectively and quickly, and to reverse the trend toward increasing drug abuse which so many communities have experienced.

Fifth. Law enforcement. The administration has not hesitated to increase expenditures for fighting crime to the extent to which they can be effective. It has taken action to strengthen the hand of all law enforcement agencies—and particularly those at the State and local levels—insofar as this is possible. The 1973 budget continues this history of generous funding for this high priority activity. It proposes \$595 million for assisting State and local law enforcement agencies, more than 17 times the 1969 level, and total outlays for law enforcement activities of \$2.3 billion, \$1.7 billion more than in 1969. These are large increases, but we cannot do less in the vital job of providing for the safety of our citizens.

These are particular programs which are given emphasis in the budget. Many others are also of great importance and funding increases of program reforms for them have been proposed. To review them all would not be possible; not to review them in detail does not mean they are not of high priority or that we

in the Congress should not consider them and act on them promptly and positively. To name some of the areas involved should be sufficient suggestion of their importance: health care, scientific research and technology, the environment, programs for veterans, nutritional programs, civil rights programs, and others. It adds up to a sizable agenda for legislative action.

But the President is bound not only to set forth his proposals for individual programs; he must also describe his revenue projections and proposals, and he must square his individual program proposals with a single recommendation for total spending which is sensibly related to his revenue estimates. In short, the budget recommends funding levels for individual programs, not only in light of their absolute needs considered in a vacuum but in light of the needs of all other programs and in light of the ability of the Nation to support government programs, whether through revenues or borrowing. These factors are far too rarely considered in the Congress and the result is not a surprise.

We will hear much in the coming months about how the spending level proposed in the budget for this program or that is insufficient. Proposals for extravagant schemes to serve this or that admirable objective will be much in vogue. Often a program will be presented with a small first year cost which is scheduled to burgeon into a major budget commitment at a later time. I would warn against such rhetoric and discussion.

The fact is that the budget for fiscal 1973 proposes total spending of over \$246 billion. That is more than \$25 billion in deficit. This is to follow on actual deficits for the previous 2 years of \$23 billion and \$38.8 billion. The full-employment deficit for 1972 is estimated at over \$8 billion. In these circumstances can it seriously be said that we are not spending enough?

For the past 21 years in Congress, I have vigorously opposed deficit spending but I must concur with the President's conclusion that the economic crisis which he inherited makes it necessary to use very stringent methods indeed to restore us to a sound economy in peacetime. Thus far, he has done better than any other administration in transition from war to peace.

The President does not like deficits. He refers to deficit spending as "necessary medicine," and continues, "We take that medicine because we need it, not because we like it." While it is reasonable to have an actual deficit when the economy is operating at less than full employment, however, it is not reasonable—indeed it is foolhardy—to propose to spend more than the amount of revenue that would be produced if the economy were operating at full employment. In 1972 we have had to spend more than full-employment revenues because of a variety of legislative and executive actions, not anticipated in the budget submitted a year ago, and because of the need to reduce taxes in mid-year in order to stimulate the economy. The 1973 budget would be balanced at full employment.

In this situation, new spending programs or increases in proposed spending levels, it seems to me, must meet a new test—one which takes account of the overall budget position in which the country finds itself. Is the need for the additional expenditure so great as to warrant an increase in taxes or the elimination or reduction of some existing program? And will the proponent of the additional expenditure see to it that the majority he would assemble in its favor can similarly be mustered to find the money in other programs? For the short of the matter is that there is no other source of money beyond full-employment revenues than additional taxes or inflation will assess from the people.

The President's 1973 budget faces up to the overall constraint I have described. In this it is distinguished from so many of the criticisms that will be made of individual parts of it without thought of the whole. I would urge the Congress to give the President's proposals the most serious consideration and to support the programs and principles expressed in his budget.

VIETNAM—REDUCTIONS IN TROOP STRENGTH AND FREE WORLD SHIPPING

The SPEAKER pro tempore. Under a previous order of the House, the gentle-

man from Michigan (Mr. CHAMBERLAIN) is recognized for 5 minutes.

Mr. CHAMBERLAIN. Mr. Speaker, the President's announcement on January 13, of further major cuts in U.S. troop strength in Vietnam provides additional evidence of his determination to keep his promise to the American people to bring home American troops and end the war. Three years ago, when President Nixon took office, there were 543,400 U.S. servicemen in Vietnam. After the latest reductions take effect on May 1 of this year, the total troop ceiling will be down to 69,000. This solid achievement, speaks more eloquently of the desire for peace than all the millions of words that have been uttered about Vietnam.

In another area of the Vietnam conflict there has also been substantial progress over the past 3 years. In 1968, there were a total of 149 free world flag ship arrivals in North Vietnam. These included ships under the registry of nine different non-Communist countries. By contrast, during 1971 the total number of such arrivals amounted to 63 with the number of countries involved having been cut from nine to two.

Furthermore, only 19 different vessels were involved in these 63 arrivals. This, too, represents a reduction from the 24 vessels which frequented North Vietnamese ports a total of 58 times during 1970.

I would also point out that this traffic

is under charter to Communist interests with most of the traffic taking place between North Vietnam and its Communist neighbors.

The two flags that remain in this traffic are the British and the Somali. I am advised, however, all of the vessels in the 1971 trade are owned by shipping interests located in Hong Kong which are unofficially but effectively under Communist Chinese control.

In the case of the Somali Republic, the State Department has advised me that U.S. foreign aid was ordered stopped following the refusal of that country's present Government to honor an agreement reached with its predecessor to remove all Somali flag vessels from this trade.

With regard to the British flag traffic, the United Kingdom has maintained that under present law, it can do nothing about these Hong Kong based ships. The fact remains, however, that this inability results in nothing less than the renting of the British flag to Communist interests to help carry on the war in Vietnam. In my view, this cannot be justified, and I again urge that efforts be continued to reduce the level of this traffic so long as American fighting men must put their lives on the line in Vietnam.

The following information provides a 4-year history of this trade:

NON-COMMUNIST SHIP ARRIVALS IN NORTH VIETNAM

Month	United Kingdom	Cyprus	Malta	Italy	Lebanon	Singapore	Somalia	Japan	Kuwait	Total
1968:										
January	9	1								10
February	7	1								8
March	10			1		1				12
April	10	1			1	1				13
May	13	3						1		18
June	12	2	1		1	1				17
July	6						2			8
August	9	3								12
September	11	1				1			1	14
October	7	1					2			10
November	9	1				1	2			13
December	10					1	3			14
Total	114	14	1	1	2	6	9	1	1	149
Month	United Kingdom	Somalia	Cyprus	Singapore	Japan	Malta	Total			
1969:										
January	8	2	1				11			
February	6		1	2	1		10			
March	6	1					7			
April	7			1	1		9			
May	9	1	1				11		1	
June	6	2	2	1			11			
July	6	1					7			
August	4		2				6			
September	4		1	1			6			
October	4		1		1		6			
November	7						7			
December	7						7			
Total	74	7	9	5	3	1	99			
1970:										
January	2		1						1	4
February	5		1							6
March	3		1							4
April	7		2							9
May	6		3							9
June	3		2							5
July	4		3							7
August	2			1						3
September	4				1					5
October	1									1
November	2		1							3
December	1		1							2
Total	40	15	1	1				1		58

Month	United Kingdom	Somalia	Total
1971:			
January.....	3	1	4
February.....	5	1	6
March.....	3	1	5
April.....	5	1	6
May.....	4	1	5
June.....	3	1	4
July.....	2	2	4
August.....	4	3	7
September.....	1	1	2
October.....	6	2	8
November.....	6	1	7
December.....	4	2	6
Total.....	46	17	63

Source: U.S. Department of Defense.

ADVISORY COMMISSION ON INTER-GOVERNMENTAL RELATIONS—VOICE FOR SCHOOL BOARD OFFICIALS

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Michigan (Mr. WILLIAM D. FORD), is recognized for 5 minutes.

Mr. WILLIAM D. FORD. Mr. Speaker, today my distinguished colleague, the gentleman from New York (Mr. PEYSER) and I are introducing legislation to give locally elected school board officials a voice on the Advisory Commission on Intergovernmental Relations. The Commission will be advising the President on the intergovernmental relationship aspect of the financial problems which presently beset our Nation's elementary and secondary school system.

The President, in his state of the Union message last week, referred to two complex and inter-related sets of problems with which school systems are now confronted. He spoke of their financial problems and he mentioned the possible affects that any type of tax reform might have on the basic relationships of Federal, State, and local governments.

In addressing the intergovernmental relations aspects of these problems, the President announced that he had enlisted the aid of the Advisory Commission on Intergovernmental Relations, and, quite accurately, he pointed out that the Commission is composed of Members of Congress, representatives of the executive branch, Governors, State legislators, local officials, and private citizens.

However, there is one group whose voice in this body is conspicuously absent—the voice of locally elected school board officials. They have no representation whatsoever.

As presently constituted, the Advisory Commission consists of 26 members—three of which are appointed from the Senate and three from the House of Representatives. The remaining 20 are appointed by the President as follows: Three must be officers of the executive branch and three must be private citizens; four are appointed from a panel of at least eight Governors submitted by the Governors Conference; three are appointed from a panel of at least six members of State legislative bodies submitted by the Council of State Governments; four are appointed from a panel of at least 8 mayors submitted jointly by the American Municipal Association and the United States Conference of Mayors;

and three are appointed from a panel of at least six elected county officers submitted by the National Association of County Officials.

The legislation we are introducing today would simply expand the number of members of the Advisory Commission from 26 to 28 and provide that two members shall be appointed by the President from a panel of at least four elected school board officials submitted by the National School Boards Association.

We think that this is a reasonable and equitable proposal. The President himself expressed his commitment to the principle that local school boards must have control over local schools. We agree wholeheartedly.

However, we would like to extend this principle by giving locally elected school officials a voice in formulating the national policies which will ultimately affect their local school districts. The legislation which we are introducing today would accomplish this—by giving locally elected school officials a voice in the Advisory Commission on Intergovernmental Relations.

We urge our colleagues to give this legislation the favorable and prompt consideration which it deserves. By adopting this bill we will be extending the same privileges to elected school officials that are now enjoyed by elected officials from virtually every other level of government and we will be making the Advisory Commission on Intergovernmental Relations a more effective advisory body as well.

CURE AND PREVENTION OF DRUG ADDICTS NEEDED

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Florida (Mr. PEPPER) is recognized for 10 minutes.

Mr. PEPPER. Mr. Speaker, Governor Warren E. Hearnes of Missouri addressed a letter to me as chairman of the Select Committee on Crime 2 weeks ago which read, in part:

The situation your Committee has uncovered concerning the primitive state and development of specific pharmacologic approaches to the prevention and treatment of heroin dependence is dismaying and I commend the Committee for the constructive recommendations it has made to remedy this grave deficiency.

The ubiquity of narcotic dependence has not spared the great cities of Missouri, and I am pleased to endorse the implementation of the programs proposed in your Committee's recommendation. A bill to promote research and development of drugs or chemical compounds for use in the cure, prevention or treatment of heroin addiction as appended to the Committee report should be enacted by Congress. The sum of \$50 million recommended is indeed a minuscule amount to combat this national emergency.

I cite Governor Hearnes' letter as typical of the tremendous response received from Members of Congress, Governors, mayors, attorneys general, and members of the scientific communities to the Crime Committee's call for emergency funds to find new drugs to fight the scourge and national shame of heroin addiction.

It has been but 55 days since the committee introduced H.R. 11927, a bill to promote research and development of drugs for use in the cure, prevention or treatment of heroin addiction.

Today, I have the honor to submit the names of 74 additional Members of the House who join the 11 members of the Crime Committee in this bipartisan effort that might well mark the turning point in the fight against crime and heroin addiction in the United States.

That we are beset by a national emergency in which new drugs can be the key to the solution is clearly evident in the letters that have reached me from responsible community leaders.

Mr. Keith Sanborn, Sedgwick County Attorney in Wichita, Kans., wrote:

A few years ago the thought of heroin sales or heroin addiction in Wichita, Kansas, was not even a faint cloud on the horizon. We view the heroin problem now the same as you have reported, as a public health epidemic.

Alabama Attorney General William J. Baxley equates the search for an effective antiheroin drug with the intensive research that led to the development of the atomic bomb through the Manhattan Project of World War II. The Attorney General wrote:

A sure-fire therapy for addicts would be invaluable to us in our struggle with this problem. We can never hope to stop the flow of illegal heroin until we learn to cure the addict's craving for this drug.

And, like Kansas, heroin addiction has not been a problem in the State of Iowa until the last several years. Richard C. Turner, attorney general for the State of Iowa, wrote:

Indeed, it is still inconceivable to most Iowans that heroin addiction could be a serious problem here. But the alarming fact is that heroin addiction has made a formidable inroad in Iowa.

Letters expressing concern and alarm over the inroads being made in rural America for what once was thought to be a purely urban problem continue to reach me daily.

That this concern is reflected in the national Congress can be noted by the number of my colleagues from the less densely populated sections of the country who recognize the infectious nature of this killer drug.

The 85 Members of the House, listed below, who have joined in this bipartisan call for intensified research to develop new drugs to counteract the effects of heroin addiction, would we come additional cosponsors to work toward the enactment of H.R. 11927 early in this second session.

Cosponsors of legislation to promote research and development of drugs or chemical compounds for use in the cure, prevention, or treatment of heroin addiction, include:

Mr. ABBITT, Mrs. ABZUG, Mr. ALEXANDER, Mr. ANDERSON of Tennessee, Mr. ASPIN, Mr. BEVILL, Mr. BIAGGI, Mr. BRASCO, Mr. BROWN of Michigan, Mr. BROYHILL of North Carolina, Mr. BROYHILL of Virginia, Mr. BUCHANAN, Mr. BURKE of Massachusetts, Mr. BYRNE of Pennsylvania, Mr. BYRON, Mrs. CHISHOLM, Mr. DON H. CLAUSEN, Mr. DEL CLAWSON, Mr. CLAY,

Mr. CLEVELAND, Mr. COLLINS of Texas, Mr. CONYERS, Mr. CORDOVA, Mr. COTTER, and Mr. DANIELS of New Jersey.

Also, Mr. DIGGS, Mr. DOW, Mr. DOWDY, Mr. DULSKI, Mr. DU PONT, Mrs. DWYER, Mr. ESHLEMAN, Mr. FORSYTHE, Mr. FRASER, Mr. GARMATZ, Mrs. GRASSO, Mr. GRAY, Mr. HALEY, Mr. HALL, Mr. HALPERN, Mr. HANLEY, Mr. HANNA, Mr. HARRINGTON, Mr. HAWKINS, Mr. HECHLER of West Virginia, Mrs. HICKS of Massachusetts, Mr. HILLIS, Mr. HORTON, Mr. HOWARD, Mr. KEATING, Mr. KEE, Mr. McDADE, Mr. McKINNEY, and Mr. MANN.

Also, Mr. MEEDS, Mr. MITCHELL, Mr. MOORHEAD, Mr. MORSE, Mr. MURPHY of Illinois, Mr. PEPPER, Mr. RANGEL, Mr. REES, Mr. ROBINSON of Virginia, Mr. ROONEY of New York, Mr. ROY, Mr. RUPPE, Mr. SANDMAN, Mr. SARBANES, Mr. SCHERLE, Mr. SCHEUER, Mr. SIKES, Mr. SMITH of Iowa, Mr. STEIGER of Arizona, Mrs. SULLIVAN, Mr. THOMPSON of New Jersey, Mr. TIERNAN, Mr. VANIK, Mr. VEYSEY, Mr. WALDIE, Mr. WIGGINS, Mr. WILLIAMS, Mr. CHARLES WILSON, and Mr. WINN.

Tomorrow the names of my good friend and colleague in the Rules Committee, the Honorable THOMAS "TIP" O'NEILL, and a freshman Florida colleague, the Honorable C. W. "BILL" YOUNG, will be added to those that are sponsoring this vitally needed legislation.

ORIENTAL AMERICANS, AN OVERLOOKED MINORITY

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from California (Mr. DANIELSON) is recognized for 10 minutes.

Mr. DANIELSON. Mr. Speaker, there is at least one minority group in the United States that is not receiving the attention being afforded other more vocal minority groups. I feel that the voice of the Oriental American community is not being heard clearly enough.

Two years ago legislation was enacted to establish a Cabinet Committee on Opportunities for Spanish-speaking People. Minority groups in our country have not always achieved full participation in the benefits of U.S. citizenship, they often have been denied full civil, economic, and social equality. This has been true for many cultural minorities.

I have introduced a bill in the House of Representatives to create a Cabinet Committee on Oriental-American Affairs. This measure is patterned after the already-functioning Spanish-speaking Cabinet Committee, and is designed to provide Oriental Americans with greater opportunity to participate in the civic, economic, and social activities of America. We are, all of us, citizens of this great country and we should all participate equally in its benefits as well as in its burdens.

Several groups within the Asian American community have had an opportunity to comment on this proposal and to make suggestions for its improvement. Their communications demonstrate the need for this type of advisory committee.

The belief exists in many parts of our country that Oriental Americans have achieved full participation in our society

and economy and that their well-being is assured. A closer look, however, reveals that language difficulties, underemployment, and omission from programs aiding other minority groups are prevalent.

Due partly to historic patterns and partly to the recent increases in the numbers of Asians coming to America, the Oriental American communities are plagued by problems which are now approaching crisis proportions. The elderly, the very young, the workers—these are the persons most adversely affected. It seems that only concerted Federal action, with its nationwide approach, can begin to investigate, identify and remedy the inequities and problems afflicting the Asian American population throughout our country.

The proposed Cabinet Committee would work with Federal agencies and organizations receiving Federal funds to assure that national programs do not overlook the needs of Oriental Americans and that they provide the assistance needed by Oriental Americans. It would also receive complaints, conduct hearings and investigations, and advise the Cabinet and top-level Government officials as to how best to solve the problems of Oriental American communities.

An Advisory Council would be created, composed of representatives from various segments of the Oriental-speaking and Oriental-surnamed community—Japanese, Chinese, Korean, Filipino, Indonesian, Polynesian, and other identifiable groups. The Council would be authorized to investigate the needs, problems and obstacles facing Oriental Americans, specifically in the areas of employment, housing, education, and health care.

Annual reports would be submitted to the President and to Congress on the committee's activities during the preceding year, including in the report any recommendations the committee deems appropriate to accomplish the purposes of the act.

This proposal has been referred to the House Committee on Government Operations where it is currently pending.

An example of the kind of programs to be made available to Oriental American communities is the Federal bilingual education program. Earlier this year, Congress appropriated \$35 million for this important program which provides bilingual educational opportunities for elementary and secondary age schoolchildren whose primary language is not English. One such program, serving both Spanish-speaking and Chinese-speaking children, is now in operation in our community.

COMPLAINT AGAINST SECRET SERVICE

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Ohio (Mr. JAMES V. STANTON) is recognized for 15 minutes.

Mr. JAMES V. STANTON. Mr. Speaker, on November 2, 1971—see CONGRESSIONAL RECORD, volume 117, part 30, page

38706—I rose to inform the House about the harassment of one of my constituents, Mr. Borivoje M. Karapandzich, by the U.S. Secret Service. I insert in the RECORD, at that time, a letter I had written to President Nixon, requesting him to direct an apology to Mr. Karapandzich. I added that, unless a suitable reply were forthcoming, I would, albeit with reluctance, see to it that a lawsuit were brought in the U.S. district court.

I regret to say that the reply I did receive was not adequate, in that I was given no assurance that the Secret Service would change its modus operandi with respect to the people of the 20th Congressional District of Ohio. Accordingly, I consulted with several attorneys in Cleveland, and the local chapter of the American Civil Liberties Union evinced interest in the case. The legal and executive committees of the chapter voted unanimously to take up the cause of Mr. Karapandzich, without charge to him. But it developed that Mr. Karapandzich decided he did not want to pursue the matter further.

Personally, I regard it as unfortunate that there will be no judicial determination of this case, since important constitutional principles are involved. Therefore, I intend to stay alert to any possible future abuses by agents of the Secret Service in my congressional district, and I have asked my constituents to keep me informed, should any of them ever undergo the same ordeal experienced by Mr. Karapandzich.

At this point, Mr. Speaker, I would like to insert in the RECORD the letter from the Secret Service to me, a news article from the Cleveland Plain Dealer, and a copy of an article appearing in my current newsletter to my constituents:

U.S. SECRET SERVICE,
Washington, D.C., November 10, 1971.
Hon. JAMES V. STANTON,
House of Representatives,
Washington, D.C.

DEAR Mr. STANTON: Mr. William E. Timmons, Assistant to the President, has referred your November 2, 1971, letter to President Richard M. Nixon concerning your constituent, Mr. Borivoje M. Karapandzich, to us for appropriate and prompt handling.

As you recall, Congress passed Public Law 91-651 on January 5, 1971, authorizing the Secret Service to "protect the person of a visiting head of a foreign state or foreign government . . ."

It was in line with this new responsibility—specifically the visit of President Josip Broz Tito of Yugoslavia—that Special Agents of the Secret Service visited Mr. Karapandzich on October 12, 1971, for the purpose of conducting an interview. The interview was held after information was received by the Secret Service concerning Mr. Karapandzich.

I believe the following background information may be helpful. Subsequent to the assassination of President John F. Kennedy, the report of the Warren Commission recommended that the Secret Service develop a sophisticated liaison with all government investigative and security agencies. This recommended measure included the admonishment to develop criteria to gather intelligence to support our protective mission. This intelligence is concerned with those persons or groups that may have a potential to harm those we protect.

Therefore, on the basis of information received from other sources concerning Mr. Karapandzich, we determined that the

Secret Service should interview him in order to ascertain his intentions during the visit of President Tito to this country. The interview also included taking a photograph of him the following day in our Cleveland field office. The interview and the photograph were accomplished in an amicable manner and Mr. Karapandzich volunteered his participation on both occasions.

At this time, I believe it is also important to note that the Secret Service is not concerned with any person's political views. Rather, we are interested only in determining the true nature of those actions and utterances that appear to be a potential threat to the physical well-being of a person being protected by the Secret Service.

With reference to Mr. Karapandzich, we found him to be a gentleman who was interested in cooperating with his government. Furthermore, he declared he was opposed to any violence concerning President Tito. After the interview, we were satisfied that he was not a threat to our protective mission—security for President Tito—and no other inquiries were made concerning Mr. Karapandzich.

I want to make it clear that our intention on matters of this type is solely for the purpose of establishing a safe environment for those we are charged with protecting and only for the purpose of identifying any areas of potential danger.

Mr. Congressman, we well understand the interest that you have in your constituent and regret any anxiety or apprehension he may have as the result of our interview. This was not our intention.

If we can be of any further assistance, please let us know.

Sincerely,

JAMES J. ROWLEY.

[From the Cleveland Plain Dealer, Jan. 18, 1972]

TITO FOE DROPS SUIT OVER MUGSHOT

WASHINGTON.—A court attempt to force the Secret Service to expunge from its records a photograph of a Cleveland man has been dropped at the man's request, U.S. Rep. James V. Stanton, D-28, Cleveland, said yesterday.

The case grew out of the questioning by the Secret Service last October of Borivoje M. Karapandzich, 7104 Lawn Avenue N.W., about his attitude toward President Tito of Yugoslavia. Tito was then preparing to visit the United States.

At the agents' request, Karapandzich, who is an outspoken critic of Tito, went downtown the next day to have his picture taken by the Secret Service.

Hearing of the case, Stanton demanded that the Secret Service apologize to the Clevelanders because he was unduly harassed. Stanton threatened court action if apologies were not made.

James J. Rowley, Secret Service chief, wrote to Stanton saying Karapandzich was amicable and cooperative and there was no reason to suspect him of anything. Rowley expressed regrets for causing the Clevelanders anxiety and apprehension.

Dissatisfied with the reply, Stanton got the Greater Cleveland chapter of the American Civil Liberties Union to pursue the case in court, but Karapandzich asked that it be dropped because he did not want "further publicity." He works for the city of Cleveland.

[From Ohio 20th Congressional District Newsletter]

STANTON ACTS ON COMPLAINT OF ABUSE BY SECRET SERVICE AGENTS

Recently, Borivoje Karapandzich, 7104 Lawn Ave., wrote me to complain of abuse by the U.S. Secret Service. Mr. Karapandzich is an outspoken foe of President Tito of Yugoslavia. When Tito came here in October, agents concerned about Tito's safety went to

Mr. Karapandzich's home, asking objectionable questions, demanding his photograph and causing him to believe his City Hall job was in jeopardy.

I thought this complaint, if true, was so serious that it deserved my personal attention. I went to Cleveland to see Mr. Karapandzich. Then I confronted the agents. I concluded that Mr. Karapandzich is a law-abiding citizen, and that Tito had nothing to fear from him except criticism.

I wrote to President Nixon objecting to this treatment of my constituent. Finally, the Secret Service wrote an apology which I felt was inadequate. I informed Mr. Karapandzich that attorneys concerned with civil liberties were interested, but he thanked me for taking his case to the White House and asked that I go no further.

Unless he changes his mind, I will of course stop. However, an important principle is involved here, the right of a citizen to utter criticism without having to answer for it to a federal policeman. I insist that this right be recognized by Mr. Nixon. Should anyone else in my District undergo a similar experience, I would like to hear about it.

"A BLUEPRINT FOR SURVIVAL," A DECLARATION FROM THE ECOLOGIST, JANUARY 1972

(Mr. BRADEMAS asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. BRADEMAS. Mr. Speaker, I call attention to a significant statement entitled, "A Blueprint for Survival," published earlier this month in a British journal, the Ecologist.

This statement was prepared by a number of persons in Great Britain who have been engaged in the study of environmental problems.

The major points of the statement have won support from a number of outstanding British scientists, ecologists, and others concerned with environmental problems.

As chairman of the subcommittee which produced the Environmental Education Act of 1970 and as one of the sponsors of this law, I wish to call to the attention of my colleagues this significant document. Without myself wishing to endorse every statement in it, I am glad sympathetically to note the concern being expressed in the United Kingdom about environmental problems. I am confident that we in the United States can learn from the views of others even as, hopefully, others will have something of value to gain from our own efforts to understand and cope with environmental problems.

Mr. Speaker, I include at this point in the RECORD, from the Ecologist of January 1972, the statement, "A Blueprint for Survival":

A BLUEPRINT FOR SURVIVAL STATEMENT OF SUPPORT

The undersigned, without endorsing every detail, fully support the basic principles embodied in the *Blueprint for Survival* which follows, both in respect of the analysis of the problems we face today, and the solutions proposed.

Prof. Don Arthur, MSc PhD DSc FIBiol, Professor of Zoology, King's College, London.

Prof. D. Bryce-Smith, DSc, Professor of Organic Chemistry, Univ. of Reading.

Sir Frank Fraser Darling.

Prof. G. W. Dimbleby, BSc MA DPhil, Professor of Human Environment, Institute of Archaeology, London.

Prof. George Dunnet, BSc, PhD, Professor of Zoology, Univ. of Aberdeen.

Dr. P. N. Edmunds, BSc MD MRCPPath, Dept. of Bacteriology, Fife District Laboratory.

Prof. R. W. Edwards, DSc FIBiol, Professor of Applied Biology, Univ. of Wales Institute of Science and Technology.

Dr. S. R. Eyre, BSc, PhD, Dept. of Geography, Univ. of Leeds.

Prof. Douglas Falconer, BSc PhD FIBiol, Professor of Genetics, Univ. of Edinburgh.

Prof. John Friend, BSc PhD FIBiol, Professor of Botany, Univ. of Hull.

Prof. F. W. Grimes, CBE, DLitt FFA FMA, Institute of Archaeology, Univ. of London.

Prof. John Hawthorn, BSc PhD FRSE FRIC FIFST, Professor of Food Science, Univ. of Strathclyde.

Prof. G. Melvyn Howe, MSc, PhD, Professor of Geography, Univ. of Strathclyde.

Sir Julian Huxley, FRS.

Dr. David Lack, DSc FRS, Reader in Ornithology, Edward Grey Institute of Field Ornithology, Univ. of Oxford.

Dr. J. P. Lester, British Medical Association.

Dr. John A. Loraine, DSc MB PhD, MRC Clinical Endocrinology Unit, Edinburgh.

Diana G. M. Loraine.

Dr. Aubrey Manning, BSc DPhil, Reader in Zoology, Univ. of Edinburgh.

Prof. Vincent Marks, Prof. of Biology, Univ. of Surrey.

Prof. Ivor Mills, PhD MDL FRCP, Professor of Medicine, Dept. of Investigative Medicine, Univ. of Cambridge.

Dr. E. Mishan, PhD, Reader in Economics, London School of Economics, and Professor of Economics, American University, Washington.

Prof. P. J. Newbould, BA PhD FIBiol, Professor of Biology, The New Univ. of Ulster.

Prof. Forbes W. Robertson, PhD DSC FIBiol, Professor of Genetics, Univ. of Aberdeen.

Prof. W. A. Robson, BSCEcon LL.M PhD DLitt Dde L'Université, Professor Emeritus in Public Administration, London School of Economics.

Dr. J. Rose, MSc PhD FIL FRIC, Director, Editor, International Journal of Environmental Sciences.

Sir Edward Salisbury, FRS.

Dr. R. Scorer, MA PhD FRSH FIMA, Imperial College London and member of the Clean Air Council.

Peter Scott, CBE LID, Hon. Director the Wild Fowl Trust.

Dr. Malcolm Slessor, BSc PhD, Dept. of Pure and Applied Chemistry, Univ. of Strathclyde.

Prof. C. H. Waddington, CBE FRS, Professor of Animal Genetics, Univ. of Edinburgh.

Dr. Watson, BSc PhD DSC, Univ. of Strathclyde.

Prof. V. C. Wynne-Edwards, FRS, Regius Professor of Natural History, Univ. of Aberdeen, and Chairman, Natural Environment Research Council.

Survival International (Primitive Peoples' Fund).

PREFACE

This document has been drawn up by a small team of people, all of whom, in different capacities, are professionally involved in the study of global environmental problems.

Four considerations have prompted us to do this:

1. An examination of the relevant information available has impressed upon us the extreme gravity of the global situation today. For, if current trends are allowed to persist, the breakdown of society and the irreversible disruption of the life-support systems on this planet, possibly by the end of the century, certainly within the lifetimes of our children, are inevitable.

2. Governments, and ours is no exception,

are either refusing to face the relevant facts, or are briefing their scientists in such a way that their seriousness is played down. Whatever the reasons, no corrective measures of any consequence are being undertaken.

3. This situation has already prompted the formation of the Club of Rome, a group of scientists and industrialists from many countries, which is currently trying to persuade governments, industrial leaders and trade unions throughout the world to face these facts and to take appropriate action while there is yet time. It must now give rise to a national movement to act at a national level, and if need be to assume political status and contest the next general election. It is hoped that such an example will be emulated in other countries, thereby giving rise to an international movement, complementing the invaluable work being done by the Club of Rome.

4. Such a movement cannot hope to succeed unless it has previously formulated a new philosophy of life, whose goals can be achieved without destroying the environment, and a precise and comprehensive programme for bringing about the sort of society in which it can be implemented.

This we have tried to do, and our *Blueprint for Survival* heralds the formation of the Movement for Survival and, it is hoped, the dawn of a new age in which Man will learn to live with the rest of Nature rather than against it.

The Ecologist; Edward Goldsmith, Robert Allen, Michael Allaby, John Davoll, Sam Lawrence.

INTRODUCTION: THE NEED FOR CHANGE

110. *The principal defect of the industrial way of life with its ethos of expansion is that it is not sustainable. Its termination within the lifetime of someone born today is inevitable—unless it continues to be sustained for a while longer by an entrenched minority at the cost of imposing great suffering on the rest of mankind. We can be certain, however, that sooner or later it will end (only the precise time and circumstances are in doubt), and that it will do so in one of two ways: either against our will, in a succession of famines, epidemics, social crises and wars; or because we want it to—because we wish to create a society which will not impose hardship and cruelty upon our children—in a succession of thoughtful, humane and measured changes. We believe that a growing number of people are aware of this choice, and are more interested in our proposals for creating a sustainable society than in yet another recitation of the reasons why this should be done. We will therefore consider these reasons only briefly, reserving a fuller analysis for the four appendices which follow the Blueprint proper.*

111. Radical change is both necessary and inevitable because the present increases in human numbers and *per capita* consumption, by disrupting ecosystems and depleting resources, are undermining the very foundations of survival. At present the world population of 3,600 million is increasing by 2 per cent per year (72 million), but this overall figure conceals crucially important differences between countries. The industrialised countries with one-third of the world population have annual growth rates of between 0.5 and 1.0 per cent; the undeveloped countries on the other hand, with two-thirds of the world population, have annual growth rates of between 2 and 3 per cent, and from 40 to 45 per cent of their populations is under 15. It is commonly overlooked that in countries with an unbalanced age structure of this kind the population will continue to increase for many years even after fertility has fallen to the replacement level. As the Population Council has pointed out: "If replacement is achieved in the developed world by 2000 and in the developing world by 2040, then the world's population will stabilise at

nearly 15.5 billion (15,500 million) about a century hence, or well over four times the present size".

112. The *per capita* use of energy and raw materials also shows a sharp division between the developed and the undeveloped parts of the world. Both are increasing their use of these commodities, but consumption in the developed countries is so much higher that, even with their smaller share of the population, their consumption may well represent over 80 per cent of the world total. For the same reason, similar percentage increases are far more significant in the undeveloped countries; to take one example, between 1957 and 1967 *per capita* steel consumption rose by 12 per cent in the US and by 41 per cent in India, but the actual increases (in kg per year) were from 568 to 634 and from 9.2 to 13 respectively. Nor is there any sign that an eventual end to economic growth is envisaged, and indeed industrial economies appear to break down if growth ceases or even slows, however high the absolute level of consumption. Even the US still aims at an annual growth of GNP of 4 per cent or more. Within this overall figure much higher growth rates occur for the use of particular resources, such as oil.

113. The combination of human numbers and *per capita* consumption has a considerable impact on the environment, in terms of both the resources we take from it and the pollutants we impose on it. A distinguished group of scientists, who came together for a "Study of Critical Environmental Problems" (SCEP) under the auspices of the Massachusetts Institute of Technology, state in their report the clear need for a means of measuring this impact, and have coined the term "ecological demand", which they define as "a summation of all man's demands on the environment, such as the extraction of resources and the return of wastes". Gross Domestic Product (GDP), which is population multiplied by material standard of living appears to provide the most convenient measure of ecological demand, and according to the UN *Statistical Yearbook* this is increasing annually by 5 to 6 per cent, or doubling every 13.5 years. If this trend should continue, then in the time taken for world population to double (which is estimated to be by just after the year 2000), total ecological demand will have increased by a factor of six. SCEP estimate that "such demand-producing activities as agriculture, mining and industry have global annual rates of increase of 3.5 per cent and 7 per cent respectively. An integrated rate of increase is estimated to be between 5 and 6 per cent per year, in comparison with an annual rate of population increase of only 2 per cent."

114. It should go without saying that the world cannot accommodate this continued increase in ecological demand. *Indefinite* growth of whatever type cannot be sustained by *finite* resources. This is the nub of the environmental predicament. It is still less possible to maintain *indefinite exponential* growth—and unfortunately the growth of ecological demand is proceeding exponentially (i.e., it is increasing geometrically, by compound interest).

115. The implications of exponential growth are not generally appreciated and are well worth considering. As Professor Forrester explains it: "... pure exponential growth possesses the characteristic of behaving according to a 'double time'. Each fixed time interval shows a doubling of the relevant system variable. Exponential growth is treacherous and misleading. A system variable can continue through many doubling intervals without seeming to reach significant size. But then in one or two more doubling periods, still following the same law of exponential growth, it suddenly seems to become overwhelming".

116. Thus, supposing world petroleum reserves stood at 2,100 billion barrels, and supposing our rate of consumption was increasing by 6.9 per cent per year, then as can be seen from Figure 1, demand will exceed supply by the end of the century. What is significant, however, is not the speed at which such vast reserves can be depleted, but that as late as 1975 there will appear to be reserves fully ample enough to last for considerably longer. Such a situation can easily lull one into a false sense of security and the belief that a given growth rate can be sustained, if not indefinitely, at least for a good deal longer than is actually the case. (It is perhaps worth bearing in mind that the actual rate of petroleum consumption is increasing by 6.9 per cent per year, and according to the optimistic estimate of W. P. Ryman, Deputy Exploration Manager of the Standard Oil Company of New Jersey, world petroleum reserves (including deposits yet to be discovered) are about 2,100 billion barrels.)

The same basic logic applies to the availability of any resource including land and it is largely because of this particular dynamic of exponential growth that the environmental predicament has come upon us so suddenly, and why its solution requires urgent and radical measures, many of which run counter to values which, in our industrial society we have been taught to regard as fundamental.

117. If we allow the present growth rate to persist, total ecological demand will increase by a factor of 32 over the next 66 years—and there can be no serious person today willing to concede the possibility, or indeed the desirability, of our accommodating the pressures arising from such growth. For this can be done only at the cost of disrupting ecosystems and exhausting resources, which must lead to the failure of food supplies and the collapse of society. It is worth briefly considering each in turn.

Disruption of ecosystems

120. We depend for our survival on the predictability of ecological processes. If they were at all arbitrary, we would not know when to reap or sow, and we would be at the mercy of environmental whim. We could learn nothing about the rest of nature, advance no hypotheses, suggest no "laws". Fortunately, ecological processes are predictable, and although theirs is a relatively young discipline, ecologists have been able to formulate a number of important "laws", one of which in particular relates to environmental predictability: namely, that all ecosystems tend towards stability, and further that the more diverse and complex the ecosystem the more stable it is; that is, the more species there are, and the more they interrelate, the more stable is their environment. By stability is meant the ability to return to the original position after any change, instead of being forced into a totally different pattern—and hence predictability.

121. Unfortunately, we behave as if we knew nothing of the environment and had no conception of its predictability, treating it instead with scant and brutal regard as if it were an idiosyncratic and extremely stupid slave. We seem never to have reflected on the fact that a tropical rain forest supports innumerable insect species and yet is never devastated by them; that its rampant luxuriance is not contingent on our overflying it once a month and bombarding it with insecticides, herbicides, fungicides, and what-have-you. And yet we tremble over our wheatfields and cabbage patches with a desperate battery of synthetic chemicals, in an absurd attempt to impede the operation of the immutable "law" we have just mentioned—that all ecosystems tend towards stability, therefore diversity and complexity, therefore a growing number of different plant and animal species until a climax or optimal

condition is achieved. If we were clever, we would recognise that successful long-term agriculture demands the achievement of an artificial climax, an imitation of the pre-existing ecosystem, so that the level of unwanted species could be controlled by those that did no harm to the crop-plants.

122. Instead we have put our money on pesticides, which although they have been effective, have been so only to a limited and now diminishing extent: according to SCEP, the 34 per cent increase in world food production from 1951 to 1966 required increased investments in nitrogenous fertilisers of 146 per cent and in pesticides of 300 per cent. At the same time they have created a number of serious problems, notably resistance—some 250 pest species are resistant to one group of pesticides or another, while many others require increased applications to keep their populations within manageable proportions—and the promotion of formerly innocuous species to pest proportions, because the predators that formerly kept them down have been destroyed. The spread of DDT and other organochlorines in the environment has resulted in alarming population declines among woodcock, grebes, various birds of prey and seabirds, and in a number of fish species, principally the sea trout. SCEP comments: "the oceans are an ultimate accumulation site of DDT and its residues. As much as 25 per cent of the DDT compounds produced to date may have been transferred to the sea. The amount in the marine biota is estimated to be in the order of less than 0.1 per cent of total production and has already produced a demonstrable impact upon the marine environment. . . . The decline in productivity of marine food fish and the accumulation of levels of DDT in their tissues which are unacceptable to man can only be accelerated by DDT's continued release to the environment. . . ."

123. There are half a million man-made chemicals in use today, yet we cannot predict the behaviour or properties of the greater part of them (either singly or in combination) once they are released into the environment. We know, however, that the combined effects of pollution and habitat destruction menace the survival of no less than 280 mammal, 350 bird, and 20,000 plant species. To those who regret these losses but greet them with the comment that the survival of *Homo sapiens* is surely more important than that of an eagle or a primrose, we repeat that *Homo sapiens* himself depends on the continued resilience of those ecological networks of which eagles and primroses are integral parts. We do not need to utterly destroy the ecosphere to bring catastrophe upon ourselves: all we have to do is to carry on as we are, clearing forests, "reclaiming" wetlands, and imposing sufficient quantities of pesticides, radioactive materials, plastics, sewage, and industrial wastes upon our air, water and land systems to make them inhospitable to the species on which their continued stability and integrity depend. Industrial man in the world today is like a bull in a china shop, with the single difference that a bull with half the information about the properties of china as we have about those of ecosystems would probably try and adapt its behaviour to its environmental rather than the reverse. By contrast, *Homo sapiens industrialis* is determined that the china shop should adapt to him, and has therefore set himself the goal of reducing it to rubble in the shortest possible time.

Failure of food supplies

130. Increases in food production in the undeveloped world have barely kept abreast of population growth. Such increases as there have been are due not to higher productivity but to the opening up of new land for cultivation. Unfortunately this will not be possible for much longer: all the good land in the world is now being farmed, and accord-

ing to the FAO,² at present rates of expansion none of the marginal land that is left will be unfarmed by 1985—indeed some of the land now under cultivation has been so exhausted that it will have to be returned to permanent pasture.

131. For this reason, FAO's programme to feed the world depends on a programme of intensification, at the heart of which are the new high-yield varieties of wheat and rice. These are highly responsive to inorganic fertilisers and quick-maturing, so that up to ten times present yields can be obtained from them. Unfortunately, they are highly vulnerable to disease, and therefore require increased protection by pesticides, and of course they demand massive inputs of fertilisers (up to 27 times present ones). Not only will these disrupt local ecosystems, thereby jeopardising long-term productivity, but they force hard-pressed undeveloped nations to rely on the agro-chemical industries of the developed world.

132. Whatever their virtues and faults, the new genetic hybrids are not intended to solve the world food problem, but only to give us time to devise more permanent and realistic solutions. It is our view, however, that these hybrids are not the best means of doing this, since their use is likely to bring about a reduction in overall diversity, when the clear need is to develop an agriculture diverse enough to have long-term potential. We must beware of those "experts" who appear to advocate the transformation of the ecosphere into nothing more than a food-factory for man. The concept of a world consisting solely of man and a few favoured food plants is so ludicrously impracticable as to be seriously contemplated only by those who find solace in their own wilful ignorance of the real world of biological diversity.

133. We in Britain must bear in mind that we depend on imports for half our food, and that we are unlikely to improve on this situation. The 150,000 acres which are lost from agriculture each year are about 70 per cent more productive than the average for all enclosed land,³ while we are already beginning to experience diminishing returns from the use of inorganic fertilisers. In the period 1964-9, applications of phosphates have gone up by 2 per cent, potash by 7 per cent, and nitrogen by 40 per cent,⁴ yet yields per acre of wheat, barley, lucerne and temporary grass have levelled off and are beginning to decline, while that of permanent grass has risen only slightly and may be levelling off.⁵ As *per capita* food availability declines throughout the rest of the world, and it appears inevitable it will, we will find it progressively more difficult and expensive to meet our food requirements from abroad. The prospect of severe food shortages within the next thirty years is not so much a fantasy as that of the continued abundance promised us by so many of our politicians.

Exhaustion of resources

140. As we have seen, continued exponential growth of consumption of materials and energy is impossible. Present reserves of all but a few metals will be exhausted within 50 years, if consumption rates continue to grow as they are. Obviously there will be new discoveries and advances in mining technology, but these are likely to provide us with only a limited stay of execution. Synthetics and substitutes are likely to be of little help, since they must be made from materials which themselves are in short supply; while the hoped-for availability of unlimited energy would not be the answer, since the problem is the ratio of useful metal to waste matter (which would have to be disposed of without disrupting ecosystems), not the need for cheap power. Indeed, the availability of unlimited power holds more of a threat than

a promise, since energy use is inevitably polluting, and in addition we would ultimately have to face the problem of disposing of an intractable amount of waste heat.

Collapse of society

150. The developed nations consume such disproportionate amounts of protein, raw materials and fuels that unless they considerably reduce their consumption there is no hope of the undeveloped nations markedly improving their standards of living. This vast differential is a cause of much and growing discontent, made worse by our attempts at cultural uniformity on behalf of an expanding market economy. In the end, we are altering people's aspirations without providing the means for them to be satisfied. In the rush to industrialise we break up communities, so that the controls which formerly regulated behaviour are destroyed before alternatives can be provided. Urban drift is one result of this process, with a consequent rise in anti-social practices, crime, delinquency, and so on, which are so costly for society in terms both of money and of well-being.

151. At the same time, we are sowing the seeds of massive unemployment by increasing the ratio of capital to labour so that the provision of each job becomes ever more expensive. In a world of fast diminishing resources, we shall quickly come to the point when very great numbers of people will be thrown out of work, when the material compensations of urban life are either no longer available or prohibitively expensive, and consequently when whole sections of society will find good cause to express their considerable discontent in ways likely to be anything but pleasant for their fellows.

152. It is worth bearing in mind that the barriers between us and epidemics are not so strong as is commonly supposed. Not only is it increasingly difficult to control the vectors of disease, but it is more than probable that urban populations are being insidiously weakened by overall pollution levels, even when they are not high enough to be incriminated in any one illness. At the same time international mobility speeds the spread of disease. With this background, and at a time of widespread public demoralisation, the collapse of vital social services such as power and sanitation, could easily provoke a series of epidemics—and we cannot say with confidence that we would be able to cope with them.

153. At times of great distress and social chaos, it is more than probable that governments will fall into the hands of reckless and unscrupulous elements, who will not hesitate to threaten neighbouring governments with attack, if they feel that they can wrest from them a larger share of the world's vanishing resources. Since a growing number of countries (an estimated 36 by 1980) will have nuclear power stations, and therefore sources of plutonium for nuclear warheads, the likelihood of a whole series of local (if not global) nuclear engagements is greatly increased.

Conclusion

160. A fuller discussion of ecosystems and their disruption, of social systems and their disruption, of population and food supply, and of resources and their depletion, can be found in Appendices A, B, C and D, respectively. There will be those who regard these accounts of the consequences of trying to accommodate present growth rates as fanciful. But the imaginative leap from the available scientific information to such predictions is negligible, compared with that required for those alternative predictions, laughably considered "optimistic", of a world of 10,000 to 15,000 million people, all with the same material standard of living as the US, on a concrete replica of this planet, the only moving parts being their machines and possibly themselves. Faced with inevitable change, we have to make decisions, and we

Footnotes at end of article.

must make these decisions, soberly in the light of the best information, and not as if we were caricatures of the archetypal mad scientist.

161. By now it should be clear that the main problems of the environment do not arise from temporary and accidental malfunctions of existing economic and social systems. On the contrary, they are the warning signs of a profound incompatibility between deeply rooted beliefs in continuous growth and the dawning recognition of the earth as a space ship, limited in its resources and vulnerable to thoughtless mishandling. The nature of our response to these symptoms is crucial. If we refuse to recognise the cause of our trouble the result can only be increasing disillusion and growing strain upon the fragile institutions that maintain external peace and internal social cohesion. If, on the other hand, we can respond to this unprecedented challenge with informed and constructive action the rewards will be as great as the penalties for failure.

162. We are sufficiently aware of "political reality" to appreciate that many of the proposals we will make in the next chapter will be considered impracticable. However, we believe that if a strategy for survival is to have any chance of success, the solutions must be formulated in the light of the problems and not from a timorous and superficial understanding of what may or may not be immediately feasible. If we plan remedial action with our eyes on political rather than ecological reality, then very reasonably, very practicably, and very surely, we will muddle our way to extinction.

163. A measure of political reality is that government has yet to acknowledge the impending crisis. This is to some extent because it has given itself no machinery for looking at energy, resources, food, environmental disruption and social disruption as a whole, as part of a general, global pattern, preferring instead to deal with its many aspects as if they were self-contained analytical units. Lord Rothschild's Central Policy Review Staff in the Cabinet Office, which is the only body in government which might remedy the situation, appears not to think it worthwhile: at the moment at least, they are undertaking "no specific studies on the environment that would require an environmentalist or ecologist". There is a strong element of positive feedback here, in that there can be no appreciation of our predicament unless we view it in totality, and yet government can see no cause to do so unless it can be shown that such a predicament exists.

164. Possibly because government sees the world in fragments and not as a totality, it is difficult to detect in its actions or words any coherent general policy, although both major political parties appear to be mesmerised by two dominating notions: that economic expansion is essential for survival and is the best possible index of progress and well-being; and that unless solutions can be devised that do not threaten this notion, then the problems should not be regarded as existing. Unfortunately, government has an increasingly powerful incentive for continued expansion in the tendency for economic growth to create the need for more economic growth. This it does in six ways:

Firstly, the introduction of technological devices, i.e. the growth of the technosphere, can only occur to the detriment of the ecosphere, which means that it leads to the destruction of natural controls which must then be replaced by further technological ones. It is in this way that pesticides and artificial fertilisers create the need for yet more pesticides and artificial fertilisers.

Secondly, for various reasons, industrial growth, particularly in its earlier phases, promotes population growth. Even in its later phases, this can still occur at a high rate (0.5 per cent in the UK). Jobs must constantly be created for the additional people—

not just any job, but those that are judged acceptable in terms of current values. This basically means that the capital outlay per person employed must be maintained, otherwise the level of "productivity" per man will fall, which is a determinant of both the "viability" of economic enterprise and of the "standard of living".

Thirdly, no government can hope to survive widespread and protracted unemployment, and without changing the basis of our industrial society, the only way government can prevent it is by stimulating economic growth.

Fourthly, business enterprises, whether state-owned or privately owned, tend to become self-perpetuating, which means that they require surpluses for further investment. This favours continued growth.

Fifthly, the success of a government and its ability to obtain support is to a large extent assessed in terms of its ability to increase the "standard of living" as measured by *per capita* gross national product (GNP).

Finally, confidence in the economy, which is basically a function of its ability to grow, must be maintained to ensure a healthy state of the stock market. Were confidence to fall, stock values would crash, drastically reducing the availability of capital for investment and hence further growth, which would lead to further unemployment. This would result in a further fall in stock-market values and hence give rise to a positive-feedback chain-reaction, which under the existing order might well lead to social collapse.

For all these reasons, we can expect our government (whether Conservative or Labour) to encourage further increases in GNP regardless of the consequences, which in any case tame "experts" can be found to play down. It will curb growth only when public opinion demands such a move, in which case it will be politically expedient, and when a method is found for doing so without creating unemployment or excessive pressure on capital. We believe this is possible only within the framework of a fully integrated plan.

165. The emphasis must be on integration. If we develop relatively clean technologies but do not end economic growth then sooner or later we will find ourselves with as great a pollution problem as before but without the means of tackling it. If we stabilise our economies and husband our non-renewable resources without stabilising our populations we will find we are no longer able to feed ourselves. As Forrester¹ and Meadows² convincingly make clear, daunting through an integrated programme may be, a piecemeal approach will cause more problems than it solves.

166. Our task is to create a society which is sustainable and which will give the fullest possible satisfaction to its members. Such a society by definition would depend not on expansion but on stability. This does not mean to say that it would be stagnant—indeed it could well afford more variety than does the state of uniformity at present being imposed by the pursuit of technological efficiency. We believe that the stable society, the achievement of which we shall discuss in the next chapter, as well as removing the sword of Damocles which hangs over the heads of future generations, is much more likely than the present one to bring the peace and fulfillment which hitherto have been regarded, sadly, as utopian.

TOWARD THE STABLE SOCIETY: STRATEGY FOR CHANGE

Introduction

210. *The principal conditions of a stable society—one that to all intents and purposes can be sustained indefinitely while giving optimum satisfaction to its members—are:* (1) *minimum disruption of ecological proc-*

esses; (2) maximum conservation of materials and energy—or an economy of stock rather than flow; (3) a population in which recruitment equals loss; and (4) a social system in which the individual can enjoy, rather than feel restricted by, the first three conditions.

211. The achievement of these four conditions will require controlled and well-orchestrated change on numerous fronts and this change will probably occur through seven operations: (1) a control operation whereby environmental disruption is reduced as much as possible by technical means; (2) a freeze operation, in which present trends are halted; (3) a systemic substitution, by which the most dangerous components of these trends are replaced by technological substitutes, whose effect is less deleterious in the short-term, but over the long-term will be increasingly ineffective; (4) systemic substitution, by which these technological substitutes are replaced by "natural" or self-regulating ones, i.e. those which either replicate or employ without undue disturbance the normal processes of the ecosphere, and are therefore likely to be sustainable over very long periods of time; (5) the invention, promotion and application of alternative technologies which are energy and materials conservative, and which because they are designed for relatively "closed" economic communities are likely to disrupt ecological processes only minimally (e.g. intermediate technology); (6) decentralisation of polity and economy at all levels, and the formation of communities small enough to be reasonably self-regulating and self supporting; and (7) education for such communities.

212. As we shall see when we examine how our four conditions might be achieved, some changes will involve only a few of these operations, in others a number of the operations will be carried out almost simultaneously, and in others one will start well before another has ended. The usefulness of the operation-concept is simply to clarify the orchestration of change.

213. In putting forward these proposals we are aware that hasty or disordered change is highly disruptive and ultimately self-defeating; but we are also mindful of how the time-scale imposed on any proposal for a remedial course of action has been much abbreviated by the dynamic of exponential growth (of population, resource depletion and pollution) and by the scarcely perceived scale and intensity of our disruption of the ecological processes on which we and all other life-forms depend. Within these limitations, therefore, we have taken care to devise and synchronise our programme so as to minimise both unemployment and capital outlay. We believe it possible to change from an expansionist society to a stable society without loss of jobs or an increase in real expenditure. Inevitably, however, there will be considerable changes, both of geography and function, in job availability and the requirements for capital inputs—and these may set up immense counter-productive social pressures. Yet given the careful and sensitive conception and implementation of a totally integrated programme these should be minimised, and an open style of government should inspire the trust and co-operation of the general public so essential for the success of this enterprise.

214. One further point should be made before we consider in more detail the various changes required. As each of the many socio-economic components or variables of industrial society are changed or replaced, so various pressure points will be set up. It is easy to imagine, for example, a situation in which 25 per cent of the socio-economic variables are designed for a stable society and therefore by definition are ill-suited to one of expansion. This situation may create more problems than it solves. When we reach the point at which 50 per cent of the variables

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are adapted to stability and the other 50 per cent to expansion, the difficulties and tensions are likely to be enormous, but thereafter each change and replacement will assist further change and replacement, and the moulding of a sustainable, satisfying society should be that much easier. It is difficult for the human mind to imagine the temporal sequence of complex change, and no doubt impossible for it to visualize the precise interactions of the various components. While bearing in mind the folly of expecting computers to do our thinking for us, we believe they have an important role to play in demonstrating the consequences throughout social and ecological systems of a great number of changes over a given period of time.

Minimising the disruption of ecological processes

220. Ecological processes can be disrupted by introducing into them either substances that are foreign to them or the correct ones in the wrong quantities. It follows therefore that the most common method of pollution "control", namely dispersal, is not control at all, but a more or less useful way of playing for time. Refuse disposal by dumping solves the immediate problem of the householder, but as dumping sites are used up it creates progressively less soluble problems for society at large; smokeless fuels are invaluable signs of progress for citizens of London or Sheffield, but the air pollution from their manufacture brings misery and ill-health to the people near the plants where they are produced; in many cases the dispersal of pollutants through tall chimneys merely alters the proportion of pollution, so that instead of a few receiving much, many receive some; and lastly, in estuarine and coastal waters—crucial areas for fisheries—nutrients from sewage and agricultural runoff in modest quantities probably increase productivity, but in excess are as harmful as organochlorines and heavy metals.

221. Thus dispersal can be only a temporary expedient. Pollution control proper must consist of the recycling of materials, or the introduction of practices which are so akin to natural processes as not to be harmful. The long-term object of these pollution control procedures is to minimise our dependence on technology as a regulator of the ecological cycles on which we depend, and to return as much as possible to the natural mechanisms of the ecosystem, since in all but the short-term they are much more efficient and reliable. In the light of these remarks then, let us consider some contemporary pollution problems and how they might be solved.

222. *Pesticides.* There is no way of controlling the disruption caused by pesticides save by using less, and progress towards this end will probably require three operations: freeze, asystemic substitution, and systemic substitution. The freeze operation consists of the ending of any further commitment to pesticides, particularly the persistent organochlorines. For the developed countries this is a relatively simple procedure, and already the use of Dieldrin, DDT, and so on, is beginning to decline. For the undeveloped countries, however, it would be impossible without an undertaking from the developed ones to subsidise the supply of much more expensive substitutes. In the malaria control programme, for example, the replacement of DDT by malathion or propoxur would raise the cost of spraying operations from US \$60 million a year to \$184 million and \$510 million respectively.¹

223. Once such an undertaking is given, the undeveloped countries could proceed to the second operation. (There is no conceivable reason why the developed ones should not formally do so now.) This consists of the progressive substitution of non-persist-

ent pesticides (organophosphates, carbamates, etc.) for the organochlorines. The third operation, the substitution of natural controls for pesticides in general could follow soon after. Two important points should be borne in mind: (a) it is most unlikely that the third stage could ever be complete—we will probably have to rely on the precision use of pesticides for some considerable time as part of a programme of integrated control; and (b) the second and third operations would proceed in harness until all countries had fully integrated pest control programmes. The drawback with integrated control (the combination of biological control, mechanical control, crop-species diversity and the precise use of species-specific pesticides) is that as yet we do not know enough about it, so that a full-scale research programme is urgently required. The agro-chemical industries should be encouraged to invest in integrated control programmes though plainly, since the profits cannot be so great as from chemical control, research will need public finance—as will the training of integrated control advisory teams to assist farmers, particularly in the undeveloped countries. Such an investment, however, will appear modest once integrated control is fully operational, in comparison with the vast sums of money currently being spent annually on pesticides. A typical operational procedure for the transfer from chemical to integrated control might be as follows: organochlorines phased out, substitute pesticides phased in; in some cultivations these substitutes would be phased out almost immediately, to be replaced by integrated control; in others the time-table would be somewhat longer, depending on our understanding of the relevant agro-ecological processes and the availability of trained personnel.

224. *Fertilisers.* While on many occasions the use of inorganic fertilisers is valuable, their overuse leads to two intractable problems: the pollution of freshwater systems by run-off, and diminishing returns due to the slow but inevitable impoverishment of the soil (see appendix on food supply). Again the solution will come through three operations: freeze, asystemic substitution, and systemic substitution. The first operation requires there to be no further inorganic fertilisers, and hence the removal of subsidies for them. Again this is relatively easy for the developed countries (although there may be some drop in yield per acre), but next to impossible for the undeveloped countries, which are now being introduced to the new genetic hybrids of rice and wheat. Since the remarkable responsiveness of these hybrids is contingent on massive fertiliser inputs (up to 27 times present ones), the undeveloped world is faced with an unenviable choice: either to keep alive its expanding population over the next ten years at the price of considerable damage to soil structure and long-term fertility; or to improve soil structure so that a good proportion of the population can be fed indefinitely, but in the knowledge that the population will probably be reduced to that proportion by such natural processes as famine and epidemic. In the long-term, of course, the solution lies in population control; but in the intervening period there seems to be no alternative to concentrating on agricultural methods that are sustainable even at the expense of immediate productivity. The consequences of not doing so are likely to be much worse than any failure to take full advantage of the new hybrids. In the meantime, an emergency food-supply must be created by the developed prime-producers (USA, USSR, Canada, Australia, New Zealand) so that as much as possible of any short-fall can be met during this difficult period.

225. The second operation involves the gradual substitution of organic manures for inorganic fertilisers—though occasionally the latter will be used to supplement the

former—and the return to such practices as ration and leys; this would merge into the third operation: the adoption of highly diversified farming practices in place of monocultures. It is necessary to emphasise that this is not simply a return to traditional good husbandry: it is much more a change from flow fertility (whereby nutrients are imported from outside the agro-ecosystem, a proportion being utilised by food-plants, but with a large proportion leaving the agro-ecosystem in the form of run-off, etc.) to cyclic fertility (in which nutrients in the soil are used and then returned to it in as closed a cycle as possible). The great advantage of nutrients in organic form is that the soil appears much better adapted to them. The nitrogen in humus, for example, is only 0.5 per cent inorganic, the rest being in the form of rotting vegetation, decomposing insects and other animals, and animal manure. A high proportion of organic matter is essential for the soil to be easily workable over long periods (thus extending the period in which cultivations are timely), for it to retain water well without becoming saturated, for the retention of nutrients so that they remain available to plants until they are taken up by them (thus reducing wastage), and for the provision of the optimum environment for the microorganisms so vital for long-term fertility. The rotation of leguminous plants and of grass grazed by animals are the most effective ways of adding organic matter to the soil, while at the same time allowing livestock to select their own food in the open has the double advantage that they are bred with a healthy fat-structure and their wastes enrich the soil instead of polluting waterways or overloading sewage systems. By diversifying farming in these and other ways we are taking advantage of the immense growth of knowledge about agricultural ecology, which plainly will increase with additional research.

226. *Domestic sewage.* The volume of sewage is directly proportional to population numbers and can only be stabilised or reduced by stabilising or reducing the population. However, sewage can and should be disposed of much more efficiently. It is absurd that such valuable nutrients should be allowed to pollute fresh and coastal waters, or that society should be put to the expense of disposing of them in areas where they cannot be effectively utilised. Unfortunately, in developed countries, their disposal as agricultural fertiliser is not generally feasible, largely for two reasons: (a) they are contaminated by industrial wastes; (b) transportation costs are too high. Both difficulties can be overcome—in the first case by ensuring that there is no (or negligible) admixture of industrial to domestic effluents, which depends on better industrial pollution control (see below); and in the second case by decentralising so that there is an improved mix of rural and urban activities. This will be explored in the section on social systems. In undeveloped countries, the problem of domestic sewage could be overcome by the provision of aid to pay for sewage plants that yield purified water and usable sludge.

227. *Industrial wastes.* Reduction of industrial effluent should proceed by two operations: a control operation, and an alternative (materials and energy conservative) technology operation. We have already suggested that the key to pollution control is not dispersal but recycling, and since recycling is a most important element in resource management it will be discussed in the section on stock economics. The alternative technology operation will be considered in the section on social systems.

Conversion to an economy of stock

230. The transfer from flow to stock economics can be considered under two headings: resource management and social accounting.

¹Footnotes at end of article.

231. *Resource management.* It is essential that the throughput of raw materials be minimised both to conserve non-renewable resources and to cut down pollution. Since industry must have an economic incentive to be conservative of materials and energy and to recycle as much as possible, we propose a number of fiscal measures to these ends: (a) A raw materials tax. This would be proportionate to the availability of the raw material in question, and would be designed to enable our reserves to last over an arbitrary period of time, the longer the better, on the principle that during this time our dependence on this raw material would be reduced. This tax would penalise resource-intensive industries and favour employment-intensive ones. Like (b) below it would also penalise short-lived products.

(b) An amortisation tax. This would be proportionate to the estimated life of the product, e.g. it would be 100 per cent for products designed to last no more than a year, and would then be progressively reduced to zero per cent for those designed to last 100+ years. Obviously this would penalise short-lived products, especially disposable ones, thereby reducing resource utilisation and pollution, particularly the solid-waste problem. Plastics, for example, which are so remarkable for their durability, would be used only in products where this quality is valued, and not for single trip purposes. This tax would also encourage craftsmanship and employment-intensive industry.

232. The raw materials tax would obviously encourage recycling, and we can see how it might work if we consider such a vital resource as water. The growing conflict between farmers, conservationists and the water boards is evidence enough that demand for water is conflicting with other, no less important, values. At the moment, the water boards have no alternative but to fulfill their statutory obligation to meet demand, and accordingly valley after valley comes under the threat of drowning. Clearly, unless we consider dry land an obstacle to progress, demand must be stabilised, and since demand is a function of population numbers \times per capita consumption, both must be stabilised, if not reduced (and we have seen that for other reasons they must be reduced). To this end therefore, while a given minimum can be supplied to each person free-of-charge, any amount above that minimum should be made increasingly expensive. As far as industry is concerned, the net effect would be to encourage the installation of closed-circuit systems for water; total demand would be reduced, and there would be less pressure on lowland river systems.

233. Despite the stimulus of a raw materials tax, however, it is likely that there would be a number of serious pollutants which it would be uneconomic to recycle, and still others for which recycling would be technically impossible. One thinks in particular of the radioactive wastes from nuclear power stations. Furthermore, recycling cannot do everything: there will always be a non-recoverable minimum, which as now will have to be disposed of as safely as possible. This limitation can be made clear if we postulate a 3 per cent growth rate, and the introduction of pollution controls which reduce pollution by 80 per cent throughout—it would then take only 52 years to bring us back where we started from, with the original amount of pollution but with a much greater problem of reducing it any further; if we had a 6 per cent growth rate, we would reach this position in a mere 26 years. It is also worth mentioning that recycling consumes energy and is therefore polluting, so that it is necessary to develop recycling procedures which are energy conservative.

234. The problem of uneconomic recycling can be resolved by the granting of incentives by government. Indeed, in the short-

term, the entire recycling industry should be encouraged to expand, even though we know that in the long-term industrial expansion is self-defeating. This brings us to the intractable problem of the disposal of the undisposable, which can only be resolved by the termination of industrial growth and the reduction of energy demand. Again fiscal measures will be supremely important, and we propose one in particular: (c) A power tax. This would penalise power-intensive processes and hence those causing considerable pollution. Since machinery requires more power than people, it would at the same time favour the employment intensification of industry, i.e. create jobs. It would also penalise the manufacture of short-lived products. In addition to this tax, there should be financial incentives for the development and installation of total energy systems, a matter to which we shall return in the section on social systems.

235. Finally, industrial pollution can also be reduced by materials substitution. The substitution of synthetic compounds for naturally occurring compounds has created serious environmental damage since in some cases the synthetics can be broken down only with difficulty and in others not at all. The usage rate of these synthetics has increased immensely at the expense of the natural products, as can be seen from the following examples:²

(a) In the US, *per capita* consumption of synthetic detergents increased by 300 per cent between 1962 and 1968. They have largely replaced soap products, *per capita* consumption of which fell by 71 per cent between 1944 and 1964.

(b) Synthetic fibres are rapidly replacing cotton, wool, silk and other natural fibres. In the US, *per capita* consumption of cotton fell by 33 per cent between 1950 and 1968.

(c) The production of plastics and synthetic resins in the US, has risen by 300 per cent between 1958 and 1968. They have largely replaced wood and paper products.

All of these processes consume the non-renewable fossil fuels, and their manufacture requires considerable inputs of energy. On the face of it, therefore, a counter-substitution of naturally occurring products would much reduce environmental disruption. However, it is possible that such a change-over, while it would certainly reduce disruption at one end, might dangerously increase it at the other. For example, many more acres would have to be put under cotton, thus increasing demand for pesticides, more land would have to be cleared and put under forest monocultures, and so on. This problem can only be solved by reducing total consumption.

236. *Genetic resources.* Before leaving the subject of resources, it is appropriate that we consider the world's diminishing stock of genetic resources. Genetic diversity is essential for the security of our food supply, since it is the *sine qua non* of plant breeding and introduction. The greater the number of varieties, the greater the opportunities for developing new hybrids with resistance to different types of pests and diseases, and to extremes of climate. It is important that new hybrids be continually developed since resistance to a particular disease is never a permanent quality. The number of plant varieties to be found in nature is infinitely greater than the number we could create artificially. Most of them are to be found in the undeveloped countries either as traditional domesticated plants or as wild plants in habitats relatively unaltered by man. There is a real danger that the former will be replaced by contemporary high-yield varieties, while the latter will disappear when their habitats are destroyed. An FAO conference in 1967 concluded that the plant gene pool has diminished dangerously, for all over

the world centres of diversity, our gene banks as it were, are disappearing, and with them our chance of maintaining productivity in food.³

237. Such centres—areas of wilderness—are often destroyed because their importance is not understood. Because they seem less productive than fields of waving corn, or because they are not accessible or attractive to tourists, they are considered in need of "improvement" or development, or simply as suitable dumping grounds for the detritus of civilisation. This is particularly true of wetlands—estuaries and marshes—where pollution, dredging, draining and filling are looked on almost with equanimity, certainly with scant regard for what is being lost. Yet the complex of living and decomposing grasses, and of phytoplankton, characteristic of wetlands, supports vast numbers of fish and birds and makes it one of the world's most productive ecosystems. Estuaries are the spawning grounds of very many fish and shellfish and form the base of the food-chain of some 60 per cent of our entire marine harvest. Should they go we can expect a substantial drop in productivity.

238. It is vital to the future well-being of man that wilderness areas and wetlands be conserved at all costs. This cannot be a matter simply of taking seed and storing it, since to be valuable genetic stock must continue to be subject to normal environmental pressures, and besides we have scarcely any idea of what plants we shall find useful in the future. For these reasons we must not only conserve large areas of natural habitat, we must also draw upon the knowledge and experience of the hunter-gatherers and hunter-farmers who gain their livelihood from them.

239. We therefore have recommended to the UN Human Environmental Conference that⁴:

(1) Certain wilderness areas of tropical rain forest, tropical scrub forest, and arctic tundra be declared inviolate, these being the least understood and most fragile biomes;

(2) the hunter-gatherers and hunter-farmers within these areas be given title to their lands (i.e. those lands in which traditionally they have gained their living) and be allowed to live there without pressure of any kind;

(3) severe restrictions be placed on entry to these areas by anyone who does not live there permanently (while allowing the indigenous free movement);

(4) sovereignty over the areas remain with the countries in which they lie; who should also be responsible for the policing of their boundaries;

(5) funds for administration of these areas and payments in lieu of exploitation (to the host country) be collected from UN members in proportion to the GNP;

(6) an international body be appointed as an outcome of the Stockholm Human Environment Conference to supervise an ecological programme of research, the results of which should be freely available to participating countries.

240. *Social accounting.* By the introduction of monetary incentives and disincentives it is possible to put a premium on durability and a penalty on disposability, thereby reducing the throughput of materials and energy so that resources are conserved and pollution reduced. But another important way of reducing pollution and enhancing amenity is by the provision of a more equitable social accounting system, reinforced by anti-disamenity legislation. Social accounting procedures must be used not just to weigh up the merits of alternative development proposals, but also to determine whether or not society actually wants such development. Naturally, present procedures require improvement: for example, in calculating "revealed preference" (the values of individuals and communities as "revealed" to

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economists by the amount people are willing and/or can afford to pay for or against a given development), imagination, sensitivity and commonsense are required in order to avoid the imposition on poor neighbourhoods or sparsely inhabited countryside of nuclear power stations, reservoirs, motorways, airports, and the like; and in calculating the "social time preference rate" (an indication of society's regard for the future) for a given project, a very low discount should be given, since it is easier to do than undo, and we must assume that unless we botch things completely many more generations will follow us who will not thank us for exhausting resources or blighting the landscape.

241. The social costs of any given development should be paid by those who propose or perpetrate it—"the polluter must pay" is a principle that must guide our costing procedures. Furthermore, accounting decisions should be made in the light of stock economics; in other words, we must judge the health of our economy not by flow or throughput, since this inevitably leads to waste, resource depletion and environmental disruption, but by the distribution, quality and variety of the stock. At the moment, as Kenneth Boulding has pointed out,⁵ "the success of the economy is measured by the amount of throughput derived in part from reservoirs of raw materials, processed by 'factors of production,' and passed on in part as output to the sink of pollution reservoirs. The Gross National Product (GNP) roughly measures this throughput."

Yet, both the reservoirs of raw materials and the reservoirs for pollution are limited and finite, so that ultimately the throughput from the one to the other must be detrimental to our well-being, and must therefore not only be minimised but be regarded as a cost rather than a benefit. For this reason Boulding has suggested that GNP be considered a measure of gross national cost, and that we devote ourselves to its minimisation, maximising instead the quality of our stock. "When we have developed the economy of the spaceship earth", he writes, "in which man will persist in equilibrium with his environment, the notion of the GNP will simply disintegrate. We will be less concerned with income-flow concepts and more with capital stock concepts. Then technological changes that result in the maintenance of the total stock with less throughput (less production and consumption) will be a clear gain". We must come to assess our standard of living not by calculating the value of all the airconditioners we have made and sold, but by the freshness of the air; not by the value of the antibiotics, hormones, feedstuff and broiler-houses, and the cost of disposing of their wastes, all of which put so heavy a price on poultry production today, but by the flavour and nutritional quality of the chickens themselves; and so on. In other words, accepted value must reflect real value, just as accepted cost must reflect real cost.

242. It is evident, however, that in a society such as ours, which to a large extent ignores the long-term consequences of its actions, there is a substantial differential between accepted cost and real cost. An industrial ton, for example, whose citizens and factories pollute the air and water systems around it and who feed themselves from a number of increasingly intensive monocultures, not only has no way of measuring the satisfactions or otherwise afforded by its life-style, nor of equitably distributing the costs imposed by one polluter on another, but no way either of assessing ecological costs, some of which will have to be paid by generation 1, others by generations 2, 3, 4, etc., and still others by people elsewhere, with whom in every other respect there might be no contact. Thus its agricultural practices might provide cheap and plentiful food for one generation and stimulate its agrochemical

industries, but may so impoverish the soil and disrupt the agroecosystem, that the next generation will have to import more food, or failing this, to resort to still riskier expedients, thereby seriously compromising the food supply of the following generation; or the wastes of one generation might affect the health of the next, or its marine food supply, or so increase the mutation rate that future generations receive an unlooked for genetic burden. The extent to which we are simplifying ecosystems and destroying natural controls so that we are forced to provide technological substitutes is a real cost against society and should be accounted as one. At the moment, however, we merely add up the value of mining operations, factories and so on, and that of cleaning up the mess whenever we attempt to do so, and conclude that we have never been better off.

243. Since the full costs of any action anywhere in the world must be borne by someone, somewhere, sometime, it is important that our accounting system makes provision for this. We accept, however, that ecological processes are so complex, and can spread so far in space and time, that this will be exceptionally difficult. Nonetheless, given the truism that a satisfactory accounting system is one which supports and helps perpetuate the social system from which it derives, we must attempt to devise one which is fitted to a society based on a sober assessment of ecological reality and not on the anthropocentric pipe-dream that we can do what we will to all species, not excepting, it seems, future generations of our own. It is worth recalling Prof. Commoner's dictum that since economics is the science of the distribution of resources, all of which are derived from the ecosphere, it is foolish to perpetuate an economic system which destroys it. Ideally (and as befits the etymology of the two words), ecology and economics should not be in conflict: ecology should provide the approach, the framework for an understanding of the interrelationships of social and environmental systems; and economics should provide the means of quantifying those interrelationships in the light of such an understanding, so that decisions on alternative courses of action can be made without undue difficulty.

244. One of our long-term goals, therefore, must be to unite economics and ecology. The specific measures we have proposed are, we believe, necessary steps in this direction, albeit crude ones. A raw materials tax, an amortisation tax, a power tax, revised methods of calculating revealed preference, social time preference rate, and so on, with legislative provision for their enforcement, a set of air, water and land quality standards enforceable at law and linked with a grant-incentive programme—these and other measures will have to be introduced at an early stage. Naturally, the full force of such measures could not be allowed to operate immediately: they would have to be carefully graded so as to be effective without causing unacceptable degrees of social disturbance. Plainly the social consequences will be great, and these will be considered in the section on social systems. The key to success is likely to be careful synchronisation, and this too will be considered in a separate section.

Stabilising the population

250. We have seen already that however slight the growth rate, a population cannot grow indefinitely. It follows, therefore, that at some point it must stabilise of its own volition, or else be cut down by some "natural" mechanism—famine, epidemic, war, or whatever. Since no sane society would choose the latter course, it must choose to stabilise. To do this it must have some idea of its optimum size, since again it is unlikely that any sane society would choose to stabilise above (or indeed below) it.

251. The two main variables affected by population numbers, as opposed to *per capita* consumption, are the extent to which the

emotional needs and social aspirations of the community can be met (i.e. the complex of satisfactions which has come to be known as the quality of life), and the community's ability to feed itself. In our opinion there is good social and epidemiological evidence that Britain and many other countries in both the developed and undeveloped worlds are overcrowded. However, since this is impossible to prove, and since there is immense variation in individual emotional requirements, it would be unwise in the present state of our knowledge to rely on quality of life judgements when calculating the optimum population. Fortunately, we know much more about feeding ourselves, and assessment of the optimum becomes a realisable task if we base it on the simple ecological concept of the carrying capacity of the land.

252. Carrying capacity is usually defined as the amount of solar energy potentially available to man via food-plants in a given area. This definition must be accompanied by a caveat to the effect that if carrying capacity is considered in terms of energetics alone, a number of essential ecological and nutritional variables are in danger of exclusion. For example, it would be easy to assume that land used for a combination of purposes (mixed farming, woodland, etc.) would be better employed and could support a larger population if it were exclusively given over to the intensive production of food-plants high in calories (e.g. wheat). We know, however, that protein and the other nutrients are no less vital to us than calories, while there is evidence that we are more likely to get the proper nutritional components from meat if it comes to us from free-living animals. This requirement alone demands a certain diversity, both of species and habitat, and we have seen too (in the appendix on ecosystems) that diversity is essential if fertility and stability are to be maintained over the long-term.

253. As we have seen Britain supports a population well in excess of the carrying capacity of the land owing to its ability to import large amounts of food, especially the cheap protein required to feed our poultry and pigs. As world population grows, and with it global agricultural demand, so will it be increasingly difficult for us to find countries with exportable surpluses, surpluses which in any case will become progressively more expensive. Unless we are willing (and able) to perpetuate an even greater inequality of distribution than exists today, Britain must be self-supporting. We have stated already our belief that on the evidence available it is unlikely that there will be any significant increase in yield per acre, so that there is no other course open to us but to reduce our numbers before we stabilise. Since we appear capable of supporting no more than half our present population, the figure we should aim for over the next 150 to 200 years can be no greater than 30 million, and in order to protect it from resource fluctuation probably less.

254. Not every country is in such a difficult position as Britain. A few will be able to stabilise at or relatively near present levels. But taking world population as a whole, and using *per capita per diem* protein intake as the key variable in assessing carrying capacity, we believe the optimum population for the world is unlikely to be above 3,500 million and is probably a good deal less. This figure rests on three assumptions: (a) that the average *per capita per diem* requirements of protein is 65 grams; (b) that present agricultural production *per capita* can be sustained indefinitely; and (c) that there is absolutely equitable distribution, no country enjoying a greater *per capita per diem* protein intake than any other—which compared with today's conditions is absurdly utopian. Utopian though they may be, unless these assumptions are realised, we are faced

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either with the task of reducing world population still further until it is well below the optimum, or with condoning inequalities grosser and more unjust than those which we in the developed countries foster at present.

255. While they cannot grow indefinitely, populations can remain above the optimum—indeed above the sustainable maximum—for some time. The fact that the global population, including that of Britain, is above both levels, means only that our numbers are preventing the optimisation of other values. It means that while most people receive the bare minimum of calories necessary for survival, a large proportion are deprived of the nutrients (especially protein) essential for intellectual development. They are alive, but unable to realise their full potential—which is the grossest possible waste of human resources. An optimum population, therefore, may be defined as one that can be sustained indefinitely and at a level at which the other values of its members are optimised—and the fact that we are above this level does not justify despair, but does justify a great sense of urgency in working towards our long-term goal of the optimum. For it is obvious that given the dynamic of population growth, even if all nations today determined to stabilise their populations, numbers would continue to rise for some considerable time. Indeed the Population Council has calculated (Annual Report of 1970) that "... if the replacement-sized family is realised for the world as a whole by the end of this century—itsself an unlikely event—the world's population will then be 60 per cent larger or about 5.8 billion, and due to the resulting age structure it will not stop growing until near the end of the next century, at which time it will be about 8.2 billion (8,200 million) or about 225 per cent the present size. If replacement is achieved in the developed world by 2000 and in the developing world by 2040, then the world's population will stabilise at nearly 15.5 billion (15,500 million) about a century hence, or well over four times the present size." Clearly we must go all out for the "unlikely event" of achieving the replacement-sized family (an average of about two children per couple) throughout the world by the end of this century, if our children are not to suffer the catastrophes we seek to avoid.

256. Our task is to end population growth by lowering the rate of recruitment so that it equals the rate of loss. A few countries will then be able to stabilise, to maintain that ratio; most others, however, will have to slowly reduce their populations to a level at which it is sensible to stabilise. Stated baldly, the task seems impossible; but if we start now, and the exercise is spread over a sufficiently long period of time, then we believe that it is within our capabilities. The difficulties are enormous, but they are surmountable.

257. First, governments must acknowledge the problem and declare their commitment to ending population growth; this commitment should also include an end to immigration. Secondly, they must set up national population services with a fourfold brief:

(1) to publicise as widely and vigorously as possible the relationship between population, food supply, quality of life, resource depletion, etc., and the great need for couples to have no more than two children. The finest talents in advertising should be recruited for this, and the broad aim should be to inculcate a socially more responsible attitude to childbearing. For example, the notion (derived largely from the popular women's magazines) that childless couples should be objects of pity rather than esteem should be sharply challenged; and of course there are many similar notions to be disputed.

(2) to provide at local and national levels free contraception advice and information on

other services such as abortion and sterilisation;

(3) to provide a comprehensive domiciliary service, and to provide contraceptives free of charge, free sterilisation, and abortion on demand;

(4) to commission, finance, and coordinate research not only on demographic techniques and contraceptive technology, but also on the subtle cultural controls necessary for the harmonious maintenance of stability. We know so little about the dynamics of human populations that we cannot say whether the first three measures would be sufficient. It is self-evident that if couples still wanted families larger than the replacement-size no amount of free contraception would make any difference. However, because we know so little about population control, it would be difficult for us to devise any of the socio-economic restraints which on the face of it are likely to be more effective, but which many people fear might be unduly repressive. For this reason, we would be wise to rely on the first three measures for the next 20 years or so. We then may find they are enough—but if they aren't, we must hope that intensive research during this period will be rewarded with a set of socio-economic restraints that are both *effective* and *humane*. These will then constitute the third stage, and should also provide the tools for the fourth stage—that of persuading the public to have average family sizes of slightly less than replacement size, so that total population can be greatly reduced. If we achieve a decline rate of 0.5 per cent per year, the same as Britain's rate of growth today, there should be no imbalance of population structure, as the dependency ratio would be exactly the same as that of contemporary Britain. Only the make-up of dependency would be different: instead of there being more children than old people, it would be the other way round. The time-scale for such an operation is long of course, and this will be suggested in the section on orchestration.

Creating a new social system

260. Possibly the most radical change we propose in the creation of a new social system is decentralisation. We do so not because we are sunk in nostalgia for a mythical little England of fetes, olde worlde pubs, and perpetual conversations over garden fences, but for four much more fundamental reasons:

261. (a) While there is good evidence that human societies can happily remain stable for long periods, there is no doubt that the long transitional stage that we and our children must go through will impose a heavy burden on our moral courage and will require great restraint. Legislation and the operations of police forces and the courts will be necessary to reinforce this restraint, but we believe that such external controls can never be so subtle nor so effective as internal controls. It would therefore be sensible to promote the social conditions in which public opinion and full public participation in decision-making become as far as possible the means whereby communities are ordered. The larger a community the less likely this can be: in a heterogeneous, centralized society such as ours, the restraints of the stable society if they were to be effective would appear as so much outside coercion; but in communities small enough for the general will to be worked out and expressed by individuals confident of themselves and their fellows as individuals, "us and them" situations are less likely to occur—people having learned the limits of a stable society would be free to order their own lives within them as they wished, and would therefore accept the restraints of the stable society as necessary and desirable and not as some arbitrary restriction imposed by a remote and unsympathetic government.

262. (b) As agriculture depends more and

more on integrated control and becomes more diversified, there will no longer be any scope for prairie-type crop-growing or factory-type livestock-rearing. Small farms run by teams with specialised knowledge of ecology, entomology, botany, etc., will then be the rule, and indeed individual small-holdings could become extremely productive suppliers of eggs, fruit and vegetables to neighborhoods. Thus a much more diversified urban-rural mix will be not only possible, but because of the need to reduce the transportation costs of returning domestic sewage to the land, desirable. In industry, as with agriculture, it will be important to maintain a vigorous feedback between supply and demand in order to avoid waste, overproduction, or production of goods which the community does not really want, thereby eliminating the needless expense of time, energy and money in attempts to persuade it that it does.

If an industry is an integral part of a community, it is much more likely to encourage product innovation because people clearly want qualitative improvements in a given field, rather than because expansion is necessary for that industry's survival or because there is otherwise insufficient work for its research and development section. Today, men, women and children are merely consumer markets, and industries as they centralise become national rather than local and supranational rather than national, so that while entire communities may come to depend on them for the jobs they supply, they are in no sense integral parts of those communities. To a considerable extent the "jobs or beauty" dichotomy has been made possible because of this deficiency. Yet plainly people want jobs and beauty, they should not in a just and humane society be forced to choose between the two, and in a decentralised society of small communities where industries are small enough to be responsive to each community's needs, there will be no reason for them to do so.

263. (c) The small community is not only the organisational structure in which internal or systemic controls are most likely to operate effectively, but its dynamic is an essential source of stimulation and pleasure for the individual. Indeed it is probable that only in the small community can a man or woman be an individual. In today's large agglomerations he is merely an isolate—and it is significant that the decreasing autonomy of communities and local regions and the increasing centralisation of decision-making and authority in the cumbersome bureaucracies of the state, have been accompanied by the rise of self-conscious individualism, an individualism which feels threatened unless it is harped upon. Perhaps the two are mutually dependent. It is no less significant that this self-conscious individualism tends to be expressed in ways which cut off one individual from another—for example the accumulation of material goods like the motor-car, the television set, and so on, all of which tend to insulate one from another, rather than bring them together. In the small, self-regulating communities observed by anthropologists, there is by contrast no assertion of individualism, and certain individual aspirations may have to be repressed or modified for the benefit of the community—yet no man controls another and each has very great freedom of action, much greater than we have today. At the same time they enjoy the rewards of the small community, of knowing and being known, of an intensity of relationships with a few, rather than urban man's variety of innumerable, superficial relationships.

Such rewards should provide ample compensation for the decreasing emphasis on consumption, which will be the inevitable result of the premium on durability which we have suggested should be established so that resources may be conserved and pollu-

tion minimised. This premium, while not diminishing our real standard of living, will greatly reduce the turnover of material goods. They will thus be more expensive, although once paid for they should not need replacing except after long periods. Their rapid accumulation will no longer be a realisable, or indeed socially acceptable goal, and alternative satisfactions will have to be sought. We believe a major potential source of these satisfactions to be the rich and variegated interchanges and responsibilities of community life, and that these are possible only when such communities are on a human scale.

264. (d) The fourth reason for decentralisation is that to deploy a population in small towns and villages is to reduce to the minimum its impact on the environment. This is because the actual urban superstructure required per inhabitant goes up radically as the size of the town increases beyond a certain point. For example, the *per capita* cost of high rise flats is much greater than that of ordinary houses; and the cost of roads and other transportation routes increases with the number of commuters carried. Similarly, the *per capita* expenditure on other facilities such as those for distributing food and removing wastes is much higher in cities than in small towns and villages. Thus, if everybody lived in villages the need for sewage treatment plants would be somewhat reduced, while in an entirely urban society they are essential, and the cost of treatment is high. Broadly speaking, it is only by decentralisation that we can increase self-sufficiency—and self-sufficiency is vital if we are to minimise the burden of social systems on the ecosystems that support them.

265. Although we believe that the small community should be the basic unit of society and that each community should be as self-sufficient and self-regulating as possible, we would like to stress that we are not proposing that they be inward-looking, self-obsessed or in any way closed to the rest of the world. Basic precepts of ecology, such as the interrelatedness of all things and the far-reaching effects of ecological processes and their disruption, should influence community decision-making, and therefore there must be an efficient and sensitive communications network between all communities. There must be procedures whereby community actions that affect regions can be discussed at regional level and regional actions with extra-regional effects can be discussed at global level. We have no hard and fast views on the size of the proposed communities, but for the moment we suggest neighborhoods of 500, represented in communities of 5,000, in regions of 500,000, represented nationally, which in turn as today should be represented globally. We emphasize that our goal should be to create *community feeling* and *global awareness*, rather than that dangerous and sterile compromise which is nationalism.

266. In many of the developed countries where community feeling has been greatly eroded and has given way to heterogeneous congeries of strangers, the task of re-creating communities will be immensely difficult. In many of the undeveloped countries, however, although it will not be easy, because the process of community collapse and flight to the city has begun only recently there is a real chance that it can be halted by such means as the abandonment of large-scale industrial projects for the development of intermediate technologies at village level; and the provision of agro-ecological training teams so that communities can be taught to manage the land together, rather than encourage farmers to turn to expensive and dangerous procedures like the heavy use of pesticides and fertilisers, which tend to reduce the number of people needed on the land.

267. At home, industry will play a leading role in the programme to decentralise our

economy and society. The discussion of taxes, antisemitism legislation, and enforceable targets for air, land and water quality in the section on stock economics might lead some to believe that we are willing to bring about the collapse of industry, widespread unemployment, and the loss of our export markets. It is therefore worth emphasising that we wish strongly to avoid all three, and we do not see that they are necessary or inevitable consequences of our proposals. It is obvious that for as long as we depend on imports for a significant proportion of our food, so we must export. And since we are likely to require food-imports for the next 150 years, we are left with the question of whether it is possible to develop community industries, dedicated to the principles of maximum use/recycling of materials and durability of goods, and at the same time to earn an adequate revenue from exports.

268. We believe that the answer is yes, if the change-over is conducted in two stages. The first stage is to alter the direction of growth so that it becomes more compatible with the aims of a stable society. We have already mentioned that the recycling industry must be encouraged to expand, and it is obvious that willy-nilly it will do so as over the years taxes and quality targets become more stringent. To give a clearer idea of how the direction can be altered we will consider briefly the question of transport.

269. There are more than 12 million cars in Britain today, and according to the Automobile Association this figure will rise to 21 million by 1981. About half the households in Britain own a car today, and presumably the car population is expected to rise in response to a rise in this proportion, though presumably too, more households will own more than one car. At all events we have sufficient experience of traffic congestion in our towns and cities and the rape of countryside and community by ring-roads and motorways to realise that the motor-car is by no means the best way of democratising mobility. Indeed, if every household had a car, we would be faced with the choice of leaving towns and country worth driving to and thereby imposing immobility on the motorist, or of providing him with the vast expanses of concrete which are becoming increasingly necessary to avoid congestion at the expense of the areas they sterilise and blight.

270. No-one can contemplate with equanimity the doubling of roads within this decade necessary to maintain the *status quo*, and we must therefore seek sensible transportation alternatives. It is clear that broadly-speaking the only alternative is public transport—a mix of rapid mass-transit by road and rail. Rail especially should never have been allowed to run down to the extent that it has. The power requirements for transporting freight by road are five to six times greater than by rail and the pollution is correspondingly higher. The energy outlay for the cement and steel required to build a motorway is three to four times greater than that required to build a railway, and the land area necessary for the former is estimated to be four times more than for the latter. Public transport whether by road or rail is much more efficient in terms of *per capita* use of materials and energy than any private alternative. It can also be as flexible, provided it is encouraged at the expense of private transport.

271. This is the key to the provision of a sound transportation system. First the vicious spiral of congestion slowing buses, losing passengers, raising fares, losing more passengers, using more cars, creating more congestion, etc., must be broken. A commitment to build no more roads and to use the capital released to subsidise public transport would be an excellent way of doing this. The men who would normally live by roadbuilding could be diverted to clearing derelict

land and restoring railways and canals as part of a general programme of renewal. From there, the progressive imposition of restrictions on private transport and the stimulation of public transport so that it could provide a fast, efficient and flexible alternative would be a matter of course. Within the motor industry, the decline in production of conventional private vehicles would be compensated for by the increased production of alternative mass-transit systems. There would also be a switch of capital and manpower to the redevelopment of railway systems. In the long term, however, decentralisation will bring a diminished demand for mobility itself. As Stephen Boyden has pointed out,⁷ people use their cars for four main reasons: to go to work, to go to the countryside, to visit friends and relations, and to show off. In the stable society, however, each community will provide its own jobs, there will be countryside around it, most friends and relations will be within it, and there will be much more reliable and satisfying ways of showing off.

272. This brings us to the second stage of the change-over, in which industry turns to the invention, production, and installation of technologies that are materials and energy conservative, that are flexible, non-polluting and durable, employment-intensive and favouring craftsmanship. Progress as we conceive of it today consists in increasing an already arbitrarily high ratio of capital to job availability; but if instead this ratio were to be reduced, then our manpower requirement would go up, while at the same time the pollution which is the inevitable by-product of capital growth would be cut down. The switch in emphasis from quantity to quality will not only stimulate demand for manpower, it will also stabilise it and give much greater satisfaction to the men themselves. Instead of men being used as insensate units to produce increasing quantities of components, they should be trained and given the opportunity to improve the quality of their work. The keynotes of the manufacturing sector should come to be durability and craftsmanship—and such a premium on quality should assure us an export revenue large enough for us to continue buying food from abroad, while providing our manpower with more enjoyable occupations. In the case of industries like the aircraft industry, which would naturally have a greatly reduced role in the stable society, their engineering expertise could be turned to the development of such things as total energy systems—designed to provide the requirements of a decentralised society with the minimum of environmental disruption.

273. Industry can completely fulfill its new role only in close harmony with particular communities, so that the unreal distinction between men as employees and men as neighbors can be abandoned, and jobs then given on the basis that work must be provided by the community for the sake of that community's stability and not because one group wishes to profit from another group's labour or capital as the case may be. As industry decentralises so will the rest of society. The creation of communities will come from the combination of industrial change and a conscious drive to re-structure society.

274. The principal components of this drive are likely to be the redistribution of government and the gradual inculcation of a sense of community and the other values of a stable society. Over a stated period of time, local government should be strengthened and as many functions as possible of central government should be transferred to it. The redistribution of government should proceed on the principle that issues which affect only neighbourhoods should be decided by the neighbourhood alone, those which affect only

Footnotes at end of article.

communities by the community alone, those which affect only regions by the region alone, and so on. As regions, communities and neighbourhoods come increasingly to run their own affairs, so the development of a sense of community will proceed more easily, though we do not pretend that it will be without its problems.

275. Those regions which still have or mix will be able to effect a relatively smooth transfer, but highly urbanised areas like London, the Lancashire conurbation, and South Wales will find it much more difficult to re-create communities. Nevertheless, even in London the structural remains of past communities (like the villages of Putney, Highgate, Hackney, Islington, etc.) will provide the physical nuclei of future communities—the means of orienting themselves so that they can cut themselves away from those deserts of commerce and packaged pleasure (of which the most prominent example is the Oxford Street, Regent Street, Piccadilly complex) on which so much of London's life is currently focused.

276. It is self-evident that no amount of legislative, administrative or industrial change will create stable communities if the individuals who are meant to comprise them are not fitted for them. As soon as the best means of inculcating the values of the stable society have been agreed upon, they should be incorporated into our educational systems. Indeed, it may not be until the generation of 40–50 year olds have been educated in these values (so that as far as possible everybody up to the age of 50 understands them) that stable communities will achieve sufficient acceptance for them to be permanently useful.

Orchestration

280. A cardinal assumption of this strategy is that it will not succeed without the most careful synchronisation and integration. We cannot say of a particular section of these proposals that it alone is acceptable, and therefore we will go ahead with it immediately but consider the rest later on! This section, therefore, is devoted to a schematic, annotated outline of how change might be orchestrated. It is necessarily unsophisticated and oversimplified, but we hope it will give some idea of how change in one quarter will aid change in the others.

281. Variables included in schematic outline:

- (a) establishment of national population service
- (b) introduction of raw materials, amortisation and power taxes; anti-disamenity legislation; air, land and water quality targets; recycling grants; revised social accounting systems
- (c) developed countries end commitment to persistent pesticides and subsidise similar move by undeveloped countries
- (d) end of subsidies on inorganic fertilisers
- (e) grants for use of organics and introduction of diversity
- (f) emergency food programme for undeveloped countries
- (g) progressive substitution of non-persistent for persistent pesticides
- (h) integrated control research programme
- (i) integrated control training programme
- (j) substitution of integrated control for chemical control
- (k) progressive introduction of diversified farming practices
- (l) end of road building
- (m) clearance of derelict land and beginning of renewal programme
- (n) restrictions on private transport and subsidies for public transport
- (o) development of rapid mass transit
- (p) research into materials substitution
- (q) development of alternative technologies
- (r) decentralisation of industry: part one (redirection)

- (s) decentralisation of industry: part two (development of community types)
- (t) redistribution of government
- (u) education research
- (v) teacher training
- (w) education
- (x) experimental community
- (y) domestic sewage to land
- (z) target date for basic establishment of network of self-sufficient, self-regulating communities.

282. Notes: (diagram not reproduced.)

(1) should be operating fully by 1980; review in 1995—if replacement-size families improbable by 2000, bring in socio-economic restraints; UK population should begin to slowly decline from 2015–2020 onwards; world population from 2100; little significant feedback expected in UK until about 2030.

(2) progressive; ironing out run to eliminate inconsistencies up to 1980; thereafter revise and tighten every five years; increasingly significant feedback from 1980 onwards, stimulating materials-energy conservation, employment-intensive industry, decentralisation, and progress in direction of (p), (q), (r) and (s).

(3) limited substitution of integrated control can begin quite soon, but large-scale substitution will depend on (h) integrated control research programme; naturally (h), (i) and (j) will run in parallel and are therefore represented as one; (g) will also continue for some time.

(4) diversified farming practices (k) and integrated control (j) will link up and form an agriculture best-suited for small, reasonably self-sufficient communities, so stimulating their development: significant feedback, therefore, will occur from this point.

(5) likely to be necessary at least until 2100.

(6) labour released from road building can go to (m) clearance of derelict land, which should be completed by 1985; thereafter there may be other renewal programmes such as canal restoration, while agriculture will increasingly require more manpower.

(7) development of alternative technologies (q) and redirecting of industry (r) will proceed in harness; progressively significant feedback between (b) and (t).

(8) target date for maximum redistribution of government 2030 to coincide with 45 years operation of (w); see note (9).

(9) five years only allowed for preliminary organisation and research, since it can proceed in harness with teacher training (v) and also with the education programme itself (w).

(10) an experimental community of 500 could be set up to clarify problems; feedback to (u).

(11) as soon as communities are small enough, domestic sewage can be returned to the land; there should be the firm beginnings of a good urban-rural mix by then.

(12) by this time there should be sufficient diversity of agriculture, decentralisation of industry and redistribution of government, together with a large proportion of people whose education is designed for life in the stable society, for the establishment of self-sufficient, self-regulating communities to be well-advanced. At this point taxation, grants, incentives, etc. could be taken over by the communities themselves. A further generation is allowed until target date, however.

THE GOAL

311. *There is every reason to suppose that the stable society would provide us with satisfactions that would more than compensate for those which, with the passing of the industrial state, it will become increasingly necessary to forgo.*

312. We have seen that man in our present society has been deprived of a satisfactory social environment. A society made up of decentralised, self-sufficient communities, in which people work near their homes, have

the responsibility of governing themselves, of running their schools, hospitals, and welfare services, in fact of constituting real communities, should, we feel, be a much happier place.

313. Its members, in these conditions, would be likely to develop an identity of their own, which many of us have lost in the mass society we live in. They would tend, once more, to find an aim in life, develop a set of values, and take pride in their achievements as well as in those of their community.

314. It is the absence of just these things that is rendering our mass society ever less tolerable to us and in particular to our youth, and to which can be attributed the present rise in drug-addiction, alcoholism and delinquency, all of which are symptomatic of a social disease in which a society fails to furnish its members with their basic psychological requirements.

315. More than a hundred years ago, John Stuart Mill realised that industrial society, by its very nature, could not last for long and that the stable society that must replace it would be a far better place. He wrote¹:

"I cannot . . . regard the stationary state of capital and wealth with the unaffected aversion so generally manifested towards it by political economists of the old school. I am inclined to believe that it would be, on the whole, a very considerable improvement on our present condition. I confess I am not charmed with the ideal of life held out by those who think that the normal state of human beings is that of struggling to get on; that the trampling, crushing, elbowing, and treading on each other's heels which forms the existing type of social life, are the most desirable lot of human kind. . . . The northern and middle states of America are a specimen of this stage of civilisation in very favourable circumstances; and all that these advantages seem to have yet done for them . . . is that the life of the whole of one sex is devoted to dollar hunting, and of the other to breeding dollar-hunters.

"I know not why it should be a matter of congratulation that persons who are already richer than anyone needs to be, should have doubled their means of consumings things which give little or no pleasure except as representative of wealth. . . . It is only in the backward countries of the world that increased production is still an important object; in those most advanced, what is economically needed is a better distribution, of which one indispensable means is a stricter restraint on population. . . . The density of population necessary to enable mankind to obtain, in the greatest degree, all the advantages both of cooperation and of social intercourse, has, in all the most populous countries, been attained. . . . It is not good for a man to be kept perforce at all times in the presence of his species. . . . Nor is there much satisfaction in contemplating a world with nothing left to the spontaneous activity of nature. . . . If the earth must lose that great portion of its pleasantness which it owes to things that the unlimited increase of wealth and population would extirpate from it, for the mere purpose of enabling it to support a larger population, I sincerely hope, for the sake of posterity, that they will be content to be stationary, long before necessity compels them to it.

"It is scarcely necessary to remark that a stationary condition of capital and population implies no stationary state of human improvement. There would be as much scope as ever for all kinds of mental culture, and moral and social progress; as much room for improving the Art of Living and much more likelihood of it being improved, when minds cease to be engrossed by the art of getting on."

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The importance of a varied environment

321. In our industrial society, the only things that tend to get done are those that are particularly conducive to economic growth, those in fact that, in terms of our present accounting system, are judged most efficient!

322. This appears to be almost the sole consideration determining the nature of the crops we sow, the style of our houses, and the shape of our cities. The result, among other things, is the dreariest possible uniformity.

323. In a stable society, on the other hand, there would be nothing to prevent many other considerations from determining what we cultivate or build. Diversity would thus tend to replace uniformity, a trend that would be accentuated by the diverging cultural patterns of our decentralised communities.

324. As Rene Dubos has pointed out: "In his recent book, *The Myth of the Machine*, Lewis Mumford states that 'If man had originally inhabited a world as blankly uniform as a "highrise" housing development, as featureless as a parking lot, as destitute of life as an automated factory, it is doubtful that he would have had a sufficiently varied experience to retain images, mould language, or acquire ideas.' To this statement, Mr. Mumford would probably be willing to add that, irrespective of genetic constitution, most young people raised in a featureless environment and limited to a narrow range of life experiences will be crippled intellectually and emotionally.

"We must shun uniformity of surroundings as much as absolute conformity of behaviour, and make instead a deliberate effort to create as many diversified environments as possible. This may result in some loss of efficiency, but the more important goal is to provide the many kinds of soil that will permit the germination of the seeds now dormant in man's nature. In so far as possible, the duplication of uniformity must yield to the organisation of diversity. Richness and variety of the physical and social environment constitute crucial aspects of functionalism, whether in the planning of cities, the design of dwellings, or the management of life.

Real costs

331. We might regard with apprehension a situation in which we shall have to make do without many of the devices such as motor-cars, and various domestic appliances which, to an ever greater extent are shaping our everyday lives.

332. These devices may indeed provide us with much leisure and satisfaction, but few have considered at what cost. For instance, how many of us take into account the dull and tedious work that has to be done to manufacture them, or for that matter to earn the money required for their acquisition? It has been calculated³ that the energy used by the machines that provide the average American housewife with her high standard of living is the equivalent of that provided by five hundred slaves.

333. In this respect, it is difficult to avoid drawing a comparison between ourselves and the Spartans, who in order to avoid toil involved in tilling the fields and building and maintaining their homes employed a veritable army of helots. The Spartan's life, as everybody knows, was a misery. From early childhood, boys were made to live in barracks, were fed the most frugal and austere diet and spent most of their adult life in military training so as to be able to keep ready to seize an opportunity to rise up against its masters. It never occurred to them that they would have been far better off without their slaves, fulfilling themselves the far less exacting task of tilling their own fields and building and maintaining their own homes.

334. In fact "economic cost", as we have seen, simply does not correspond to "real cost". Within a stable society this gap must be bridged as much as possible.

335. This means that we should be encouraged to buy things whose production involves the minimum environmental disruption and which will not give rise to all sorts of unexpected costs that would outweigh the benefits that their possession might provide.

Real value

341. It is also true, as we have seen, that "economic value" as at present calculated does not correspond to real value any more than "economic cost" corresponds to real cost.

342. Our standard of living is calculated in terms of the market prices of the goods that it includes. These do not distinguish between, on the one hand, the gadgets that we do not really need and such essentials as unpolluted water, air and food on which our health must depend. In fact it tends to place greater value on the former, as we usually take the latter for granted.

343. It is in terms of these market prices that the GNP is calculated, and as we have seen, this provides the most misleading indication of our well-being.

Edward Mishant⁴ points out that "... An increase in the numbers killed on the roads, an increase in the numbers dying from cancer, coronaries or nervous diseases, provides extra business for physicians and undertakers, and can contribute to raising GNP. A forest destroyed to produce the hundreds of tons of paper necessary for the American Sunday editions is a component of GNP. The spreading of concrete over acres of once beautiful countryside adds to the value of GNP ... and so one could go on."

344. In the same way, many of the machines whose possession is said to increase our standard of living are simply necessary to replace natural benefits of which we have been deprived by demographic and economic growth. We have pointed out how true this is of the ubiquitous motor-car. Also, many labour-saving devices are now necessary because with the disintegration of the extended family there is no one about to do the household chores. The fact that both husband and wife must, in many cases, go out to work to earn the money to buy the machines required to do these chores can serve only to render such devices that much more necessary.

345. In a stable society, everything would be done to reduce the discrepancy between economic value and real value and if we could repair some of the damage we have done to our physical and social environment, and live a more natural life, there would be less need for the consumer products that we spend so much money on. Instead we could spend it on things that truly enrich and embellish our lives.

346. In manufacturing processes, the accent would be on quality rather than quantity, which means that skill and craftsmanship, which we have for so long systematically discouraged, would once more play a part in our lives. For example, the art of cooking could come back into its own, no longer regarded as a form of drudgery, but correctly valued as an art worthy of occupying our time, energy and imagination. Food would become more varied and interesting and its consumption would become more of a ritual and less a utilitarian function.

The arts would flourish: literature, music, painting, sculpture and architecture would play an ever greater part in our lives, while achievements in these fields would earn both money and prestige.

347. A society devoted to achievements of this sort would be an infinitely more agreeable place than is our present one, geared as it is to the mass production of shoddy utilitarian consumer goods in ever greater quantities. Surprising as it may seem to one reared

on today's economic doctrines, it would also be the one most likely to satisfy our basic biological requirements for food, air and water, and even more surprisingly, provide us with the jobs that in our unstable industrial society are constantly being menaced.

348. Indeed, as we have seen, the principal limitation to the availability of jobs today is the inordinately high capital outlay required to finance each worker. This limitation is withdrawn as soon as we accept that, within the framework of an overall reorganisation of our society, it would be possible for capital outlay to be reduced without reducing our real standard of living.

349. One of the Bishop of Kingston's ten commandments⁵ is: "You shall not take the name of the Lord thy God in vain by calling on his name but ignoring his natural law." In other words, there must be a fusion between our religion and the rest of our culture, since there is no valid distinction between the laws of God and Nature, and Man must live by them no less than any other creature. Such a belief must be central to the philosophy of the stable society, and must permeate all our thinking. Indeed it is the only one which is properly scientific, and science must address itself much more vigorously to the problems of co-operating with the rest of Nature, rather than seeking to control it.

350. This does not mean that science must in any way be discouraged. On the contrary, within a stable society, there would be considerable scope for the energies and talents of scientist and technologist.

Basic scientific research, plus a good deal of multidisciplinary synthesis, would be required to understand the complex mechanisms of our ecosphere with which we must learn to co-operate.

351. There would be a great demand for scientists and technologists capable of devising the technological infrastructure of a decentralised society. Indeed, with the application of a new set of criteria for judging the economic viability of technological devices, there must open a whole new field of research and development.

352. The recycling industry which must expand very considerably would offer innumerable opportunities, while in agriculture there would be an even greater demand for ecologists, botanists, entomologists, mycologists etc., who would be called upon to devise ever subtler methods for ensuring the fertility of the soil and for controlling "pest" populations.

353. Thus in many ways, the stable society, with its diversity of physical and social environments, would provide considerable scope for human skill and ingenuity.

354. Indeed, if we are capable of ensuring a relatively smooth transition to it, we can be optimistic about providing our children with a way of life psychologically, intellectually and aesthetically more satisfying than the present one. And we can be confident that it will be sustainable as ours cannot be, so that the legacy of despair we are about to leave them may at the last minute be changed to one of hope.

THE MOVEMENT FOR SURVIVAL (MS)

1. Aim: We need a Movement for Survival, whose aim would be to influence governments, and in particular that of Britain, into taking those measures most likely to lead to the stabilisation and hence the survival of our society.

2. Structure: We envisage it as a coalition of organisations concerned with environmental issues, each of which would remain autonomous but which saw the best way of achieving its aims was within the general framework of the *Blueprint for Survival*:

The Conservation Society.

Friends of the Earth.

The Henry Doubleday Research Association.

The Soil Association.

Survival International.

Two representatives of each member or-

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ganisation would join the Action Committee of the MS, which would elect a chairman and secretary to run the day-to-day business of the Movement.

3. Individual membership: Members of constituent organisations would automatically become members of the MS. Individuals who belonged to none of these bodies could join the MS only through one of these organisations.

Regular news of MS activities would be published in *The Ecologist*, a subscription to which would be available to MS members at the reduced price of £3 p.a. (25 per cent reduction). Representatives of the constituent organisations could become members of *The Ecologist's* editorial board.

4. Further information: Organisations wishing to join the MS and all others seeking further information should write to the Acting Secretary, The Movement for Survival, c/o *The Ecologist*, Kew Green, Richmond, Surrey.

APPENDIX A: ECOSYSTEMS AND THEIR DISRUPTION

It is necessary to survey the essential features of the environment in order to understand how it is being affected by man's activities.

We can define the environment as a system which includes all living things and the air, water and soil which is their habitat. This system is often referred to as the *ecosphere*. To describe it as a system is to accentuate its unity; a system being something made up of interrelated parts in dynamic interaction with each other, and capable for certain purposes, of co-operating in a common behavioural programme.

Such a programme must be regarded as goal-directed, and its goal the maintenance of stability. This appears to be the basic goal of all the self-regulating behavioural processes that make up the *ecosphere*.

Stability is best defined as a system's ability to maintain its basic features—in other words to survive in the face of environmental change. This means that, in a stable system, change will be minimised and will occur only as is necessary to ensure adaptation to a changing environment. In other words as stability increases so the frequency of random changes will be correspondingly reduced.

It is easy to see how the *ecosphere* during the last few thousand million years of evolution has slowly become more stable.

Whereas the deserts, which once covered our planet, reflected the environmental pressures to which they were subjected, the forests that developed to replace them have a capacity to maintain a relatively stable situation in the face of internal and external change. For instance, they ensure an optimum balance between the oxygen and carbon dioxide contents of the air by emitting one and absorbing the other. They provide good conditions for the run-off to rivers to be regulated. They periodically shed their leaves which build up humus, and hence ensure the continued fertility of the soil. They provide a relatively constant ambient temperature to the wild animals that live within their shade, who, as they evolve also develop stabilising mechanisms ensuring the stability of what is sometimes called their "internal environment"; the constant body temperature of warm blooded mammals being an obvious example.

Perhaps the most important feature of the *ecosphere* is its degree of organisation. It is made up of countless *ecosystems*, themselves organised into smaller ones, which are further organised into still smaller ones. Each of these is made up of populations of different species in close interaction with each other, some of which are usually organised into communities and families—further organised into cells, molecules and atoms etc.

The opposite of organization is randomness, or what is often referred to as entropy. In fact it can be said that the *ecosphere* differs from the surface of the moon and probably from that of all the other planets in our solar system, in that randomness, or

entropy, have been progressively reduced and organisation, or negative entropy, have been correspondingly increased. According to the second law or thermodynamics, there is a tendency in all systems towards increasing randomness, or entropy. This must be so, since to move in this direction is to take the line of least resistance and also because whenever energy is converted (and this must occur during all behavioural processes), waste, or random parts must be generated—from oxidation and friction if from nothing else.

The *ecosphere* has succeeded in counteracting this tendency by virtue of several unique features and because it is an open system from the point of view of energy, being continually bombarded with solar radiation.

This radiation is used by green plants during photosynthesis to organise nutrients in the soil into complex plant tissue, which are then eaten by herbivores, and hence reorganised into still more complex animal tissue.

In such processes waste or random parts must be generated. However, so long as the corresponding reduction in organisation is less than the increase in organisation achieved during the process, then entropy will have been reduced. Such increases will be limited by all sorts of factors including the availability of energy and materials, the environment's capacity to absorb waste and the organisational capacity of the system. Waste must therefore be kept down to a minimum. This can only be done by recycling it so as to ensure that the waste generated by one process serves as the materials for the next. This is essential for another reason.

Whereas the *ecosphere* is an open system as regards energy, it is a closed one as regards materials, which is another reason why all materials must be recycled, and why the waste products of one process must serve as materials for the next.

Also some of the more highly organised materials required for sophisticated processes have taken hundreds of millions of years to develop in the case of fossil fuels, for instance, and thousands of millions of years in the case of herbivorous animals required as food by carnivores. It is thus clear that to avoid increasing entropy, they cannot be used up faster than they are produced. Hence the essential cyclic nature of all ecological processes and the absolute necessity for recycling everything.

It is possible to trace just how all the resources, such as carbon, nitrogen, phosphorus, water, etc., made use of in behavioural processes, are recycled. The food cycle is particularly illustrative. Take the case of a marine *ecosystem*: fish excrete organic waste which is converted by bacteria to inorganic products. These provide nutrients, permitting the growth of algae which are eaten by fish, and the cycle is complete. In this way the wastes are eliminated, the water kept pure, and, at the same time, the materials for the next stage of the process are made available.

One of the most important features of life processes is that they are automatic or self-regulating. Self regulation can only be ensured in one way: data must be detected by the system, transduced into the appropriate informational medium, and organised so as to constitute a model or "template" of its relationship with its environment. Whenever this relationship is codified in such a way that it deviates from the optimum, the model is correspondingly affected, and it can be used to guide the appropriate course of action, and monitor each new move, until a new position of equilibrium has been reached. This basic cybernetic model explains how all systems, regardless of their level of complexity, adapt to their respective environments. The fact that all the parts of the *ecosphere* are linked to each other in this way ensures that a general readjustment of

the most subtle nature can occur to restore its basic structure after any disturbance.

To suppose that we can ensure the functioning of the *ecosphere* ourselves with the sole aid of technological devices thereby dispensing with the elaborate set of self-regulating mechanisms that has taken thousands of millions of years to evolve, is an absurd piece of anthropocentric presumption that belongs to the realm of pure fantasy.

It may be possible to replace certain natural controls locally and for a short while without any serious cataclysm occurring, but if we push things too far, if for instance the insecticides we use to replace the self-regulating controls that normally ensure the stability of insect populations were to destroy nitrogen-fixing bacteria or pollinating insects, all the money and all the technology in the world would not suffice to replace them and thereby to prevent life processes from grinding to a halt. Yet this substitution is implicit in the aim of industrial society.

As this aim is progressively realised, and as we become more and more dependent on technological devices, i.e. external controls, so must there be a corresponding increase in the instability of our social system and hence in our vulnerability to change. Imagine, what it will be like when water supplies have been exhausted and we are dependent upon desalination plants for our drinking water, when traditional methods of agriculture have totally given way to ever more ingenious forms of factory farming, and when the natural mechanisms providing us with the air we breathe have been so completely disrupted that vast installations are needed to pump oxygen into the atmosphere and filter out the noxious gases emitted by our industrial installations.

Clearly under such conditions, the slightest technical hitch or industrial dispute, or shortage of some key resource, might be sufficient to deprive us of such basic necessities of life as water, food and air—and bring life to a halt.

If man wishes to survive, to ensure the proper functioning of the self-regulating mechanisms of the *ecosphere* must be his most basic endeavour. For this to be possible however the latter's essential structure must be respected. Deviations may be possible but only within acceptable limits.

One way of exceeding these limits is to supply the system with more waste than can be used to provide the materials for other processes. In such conditions the system is said to be "overloaded"; the self-regulating mechanisms can no longer function and the waste simply accumulates. In other words entropy, or randomness, has increased and the surface of the earth resembles that much more that of the moon.

Thus, to return to our marine *ecosystem*, if the cycle is overloaded with too much sewage, detergents or artificial fertilisers which are nutrients to aquatic plant life, the amount of oxygen required to ensure the decomposition of these substances by the appropriate bacteria may be so high that other organisms will be deprived of an adequate supply.

If this goes on long enough the oxygen level will be reduced to zero. Without oxygen, the bacteria will die and a crucial phase in the cycle will have been interrupted, thereby bringing it rapidly to a halt. As a result, what was once an elaborate *ecosystem*, supporting countless forms of life in close interaction with each other now becomes a random arrangement of waste matter.

Needless to say the cycle will also come to a halt if, on the contrary, there were a shortage of nutrients. In such conditions the algae could not survive, and the fish population deprived of its sustenance, would rapidly die off.

This illustrates an essential principle of organisation; there must be an optimum value to every variable in terms of which the system is described. When each variable has its correct value, then the system described can be regarded as having its correct structure. This means that there is no value that can be

increased or reduced indefinitely without bringing about the system's eventual breakdown.

To cherish the illusion that the population and affluence of human social systems are exceptions to this law, is, as we shall see, to court the gravest possible calamities.

In order to maintain the system's structure, the actions of the self-regulating sub-systems not only seek to establish a stable relationship with another sub-system, but with their environment as a whole. In other words, they do not aim at satisfying a specific requirement, but at achieving a compromise between a whole set of often competing requirements; that which best satisfies the requirements of the environment as a whole.

Technological devices, of course, do precisely the opposite. They are geared to the achievement of specific short-term targets, regardless of environmental consequences. Since many requirements must be satisfied to maintain stability, such devices by their very nature must cause environmental problems, and, as a result, they must inevitably tend towards achieving equilibrium positions which display lower rather than higher stability. This means that the probability that disequilibria will occur and their degrees of seriousness are both likely to increase as must the rate at which new devices will be required as well as the effectiveness required of them.

In other words, the role played by technology must increase by positive feedback and our society must become even more addicted to it.

In these circumstances, unless technological innovation can proceed indefinitely at an exponential rate, then it is only a question of time before a disequilibrium occurs for which there is no technological solution, which must spell the complete breakdown of the system.

Industrial society, when it reaches a certain stage of development, begins to affect its environment in yet another manner; it devises, and becomes correspondingly dependent upon, synthetic products of different sorts to replace ever-scarcer natural products. Thus plastics are developed to replace wood products; detergents to replace soaps made from natural fats, synthetic fibres to replace natural fibres; chemical fertilisers to replace organic manure. At the same time, nuclear energy slowly replaces that previously derived from fossil fuels.

It is probable that our ecosphere does not produce a single molecule for which there is not an enzyme capable of breaking it down, in order to perpetuate the essential cycle of life, growth, death and decay. This is not so with synthetic products. They cannot normally be broken down in this way—save in some cases by human manipulation, which is only practicable on a small scale and in specific conditions. It is thus no longer a question of overloading a system. Even the slightest amount of these products, when introduced into our ecosphere, constitutes pollution, while since by their very nature they must continue accumulating, to produce them methodically is to ensure the systematic replacement of the ecosphere with extraneous waste matter.

What is worse, many of these substances find their way into life processes with which they can seriously interfere. Thus strontium 90 gets into the bones of growing children and can give rise to bone cancer; Iodine 131 accumulates in the thyroid gland and can give rise to cancer of the thyroid; DDT accumulates in the fatty matter and in the liver and may cause cancer and other liver diseases; plastics and many other pollutants also accumulate in the liver and kidneys, etc.

It is not surprising that as industrialisation proceeds, so there is a very rapid increase in the so-called degenerative diseases. Carcinogenic agents also tend to be mutagens, and their proliferation must mean a gradual reduction in the adaptiveness of our speech, a

process that clearly cannot go on indefinitely.²

There is another way in which we are degrading the ecosphere. One of its most important features is its complexity. The greater the number of different plant and animal species that make up an ecosystem, the more likely it is to be stable. This is so because, as Elton points out, in such a system every ecological niche is filled. That is to say, every possible differentiated function for which there is a demand within the system is in fact fulfilled by a species that is specialised in fulfilling it. In this way it is extremely difficult for an ecological invasion to occur, i.e. for a species foreign to the system entering and establishing itself, or, worse still, proliferating and destroying the system's basic structure.

It also means that no species forming part of the system is likely to be able to expand beyond its optimum size. The availability and size of an ecological niche undoubtedly constitutes an effective population control. Thus the diet of a specialised member of a highly differentiated ecosystem will itself be of a specialised nature, which means that if the population of a particular species were to increase, or, alternatively, to decrease, the food supply of the other species would not be affected. The opposite would be the case with species that normally form part of a simple ecosystem.

Thus goats are adapted to live in mountain areas, where ecological complexity is low, and in order to survive they have to be able to eat almost anything. The result is when they are brought down to the plains, they make short shrift of its vegetation, and their proliferation compromises the food supply of many other species.

As industrial man destroys the last wildernesses, as herds of domesticated animals replace inter-related animal species, and vast expanses of crop monoculture supplant complex plant ecosystems, so complexity and hence stability are correspondingly reduced.

Industrial man is also reducing complexity in other ways. For instance, economic pressures force farmers to reduce the number of different strains of crops under cultivation. Only those that present short-term economic advantages tend to survive. This process has been accentuated with the so-called "green revolution". Special high yield strains of rice and wheat that respond particularly well to artificial fertilisers have been developed and introduced on a large scale in many parts of the third world. In these areas many other strains have been abandoned. In this way we are reducing complexity, in some cases irreversibly, and if anything should happen to the surviving strains, essential crops like wheat and rice could well be jeopardised.

We are reducing complexity in still another way. The greater the number of trophic levels (in other words the greater the length of food chains), the more stable is an ecosystem likely to be. Thus the simplest marine ecosystem would consist of phytoplankton, capable of harnessing the sun's energy and micro-organisms capable of decomposing them. By introducing zooplankton into the system, another link has been introduced into the food chain. These, by preying on the phytoplankton, keep down their numbers and weed out the weak and unadaptive. In this way, they exert both quantitative and qualitative controls, and exert an important stabilising influence. If fish are then introduced to feed on the zooplankton, the system becomes correspondingly more stable.

Needless to say, man's activities are everywhere leading to a reduction in the length of food chains. The larger terrestrial predators have been virtually eliminated in industrial countries, and this process is now taking place in the seas. Man, by refusing to tolerate competitors for his food supply, is ultimately

jeopardising the stability of this food supply, and hence, its very availability.

Also, as SCEP points out, environmental stress appears to affect predators more radically than herbivores. In aquatic systems the top-level predators, which eat other predators, are the most sensitive of all. This appears to be the case with such disruptive situations as oxygen deficiency, thermal stress, and the introduction of toxic materials such as pesticides and fertilisers.

The effect must be to reduce the number of trophic levels in any ecosystem thereby increasing its instability. SCEP cites several examples:

"Overenrichment by sewage waste and fertiliser runoff of freshwaters, or pollution with industrial wastes, leads to the rapid loss of trout, salmon, pike, and bass. Spraying crops for insect pests have inadvertently killed off many predaceous mites, resulting in outbreaks of herbivorous mites that obviously suffered less. Forest spraying has similarly 'released' populations of scale insects after heavy damage to their wasp enemies."

In addition, SCEP points out that "such fat-soluble pesticides as DDT are concentrated as they pass from one feeding level to the next. In the course of digestion a predator retains rather than eliminates the DDT content of its prey. The more it eats, the more DDT it accumulates. The process results in especially high concentrations of toxins in predaceous terrestrial vertebrates."

Predators also suffer from the destruction of their food supply. Severe damage to the lower levels in the food chain usually leads to the extinction of the predator before that of the species on which it preys.

There is yet another way in which we are reducing complexity. Populations at any given moment will be made up of individuals of every possible age group. We tend to replace such balanced populations with plantations of trees and other crops which are all of the same age and are particularly vulnerable to diseases affecting them at particular stages in their life cycle. This principle must apply equally well to intensive stock rearing units and especially factory farms. Once more the result is to reduce stability.

Technological devices must also reduce complexity. They constitute external controls exerted by precarious human manipulation. They invariably replace natural controls of a far more complex nature.

Thus, to replace the natural controls which ensure the stability of an insect population by a single chemical pesticide involves a drastic reduction in complexity. The same must be true when we replace the natural mechanisms ensuring soil fertility with nitrogen phosphorous and potassium which are the main ingredients of artificial fertilisers.

In fact, most human activities are reducing the stability of the ecosphere, which is simply another way of saying that they are determining its systematic degradation.

For several thousand million years, the ecosphere has been developing into an extremely complex organisation of different forms of life in close interaction with each other. In doing this it has been counteracting the basic tendency of all systems towards randomness or entropy. The elaborate mechanisms that have enabled the ecosphere to develop in this manner have been disrupted by man's activities. In his gross presumption, he has sought to replace them with devices causing dereliction and confusion, which rather than seek to satisfy the countless competing requirements of the ecosphere, have been geared to the satisfaction of petty, short-term anthropocentric ends. As a result, the organisational process has been reversed; waste, or random parts, are accumulating faster than organisation is building up. Rather than counteract the inexorable trend towards entropy, industrial man's activities are accelerating it.

If these activities continue to increase exponentially at 6.5 per cent per annum, or

Footnotes at end of article.

double every 13½ years, it cannot take many decades before our planet becomes incapable of supporting complex forms of life.

Pollution

Studies of the effects of pollutants on ecosystems have often yielded contradictory results. Rather than attempt to weigh these up, we have chosen to summarise some of the findings of what is almost certainly the most authoritative study, that undertaken in 1969 by an impressive group of scientists from many different disciplines under the auspices of MIT and referred to as "The Study of Critical Environmental Problems" or SCEP. This study is to be used as background material for the UN Conference on the Human Environment 1972.

SCEP accentuates the necessity for adopting a holistic approach. "The significant aspect of human action is man's total impact on ecological systems, not the particular contributions that arise from specific pollutants. Interaction among pollutants is more often present than absent. Furthermore, the total effect of a large number of minor pollutants may be as great as that of one major pollutant. Thus the total pollution burden may be impossible to estimate except by direct observation of its overall effect on ecosystems."

The scale of human activity can be estimated by comparing specific man-induced processes with the natural rates of geological and ecological processes. It can be shown that in at least 12 cases man-induced rates are as large or larger than the natural rates (see Table 5).

It is pointed out that with a five per cent natural growth increment in the mining industries, this will apply to many more materials.

"... these comparisons show that at least some of our nations are large enough to alter the distribution of materials in the biosphere. Whether these changes are problems depends upon the toxicity of the material, its distribution in space and time, and its persistence in ecological terms."

Most of the disruptive processes already described are well advanced, however, and as they occur slowly the most visible effect is a gradual deterioration of ecosystems, "characterised by instability and species loss."

Many lakes and urban centres have severely deteriorated ecosystems. Less severe deteriorations occur more commonly, often as temporary afflictions in ecosystems that otherwise manage to survive intact: "... This general problem is labelled 'attrition' because it lacks discrete steps of change. Stability is lost more and more frequently, noxious organisms become more common, and the aesthetic aspects of waters and countryside become less pleasing. This process has already occurred many times in local areas. If it were to happen gradually on a global scale, it might be much less noticeable, since there would be no surrounding ecosystems against which to measure such slow changes. Each succeeding generation would accept the status quo as "natural."

ENERGY PRODUCTS

Present and future levels of energy consumption are particularly relevant to estimating our capacity to disrupt ecosystems. The best available calculation appears to be that made by the Battelle Memorial Institute 1969. In 1968 energy consumption in the US was slightly over 60,000 trillion BTU. It appears to be rising at 3.2 percent per annum and is expected to be 170,000 trillion BTUs by the year 2000.

Over the last 50 years there has been a decreasing amount of energy used for each unit of GNP. The increased technical efficiency of energy used has tended to more than offset the more intense use of energy. The trend, however, appears to be changing. The present policy is to encourage energy use while the technical efficiency of new electric power plants and other energy conversion devices is

no longer increasing and many even decrease over the next decades. If this is so, then it is possible that this and other projections have underrated future energy requirements. On the other hand conservation pressures might lead to a reduced usage and this has not been taken into account.

World wide energy consumption projection made by Joel Darmstadter of Resources for the Future has appeared in a work *Energy and the World Economy* (see Table 1).

What are likely to be the emissions from power production and other forms of energy production?

It is estimated that in 1967 some 13.4 billion metric tons of CO₂ were released from fossil fuel combustion and that emissions in 1980 (using Darmstadter's projection) would be 26 billion metric tons for the world as a whole.

SCEP points out that the trend towards depleting the remaining stands of original forests, such as those in tropical Brazil, Indonesia and the Congo, will further reduce the capacity of the ecosystem to absorb CO₂ and may release even more CO₂ to the atmosphere. The CO₂ content of the atmosphere is increasing at a rate of 0.2 per cent per year since 1958. One can project, on the basis of these trends, an 18 per cent increase by the year 2000, i.e. from 320 ppm to 379 ppm. SCEP considers that this might increase temperature of the earth by 0.5°C. A doubling of CO₂ might increase mean annual surface temperature by 2°C (see Table 3).

Heat

Thermal waste energy is increasing at a rate of 5.7 per cent per annum, which means that it is likely to increase by a factor of 6 before the end of the century. The total for 1970 was 5.5 10⁶ MW which is likely to increase to 9.6 by 1980 and 31.8 10⁶ MW by 2000. The effects on global climate are not known.

Emissions of pollutants such as sulphur oxides, nitrogen oxides, hydrocarbons, carbon monoxide and particulate matter, cannot be predicted with any assurances. The theoretical knowledge necessary to make these predictions does not yet exist nor are the relevant facts available.

As far as emissions of radionuclides are concerned the major source will be at the site of fuel reprocessing plants. One estimate is that 99.9 per cent of all such emissions entering the environment are from such sources. Concern is expressed for emissions of "potentially hazardous" radionuclides such as iodine 131, xenon 133, strontium 90, and caesium 137. Possible releases of tritium (hydrogen 3) and krypton 85 are also of concern.

Total emissions would not lead to anything like maximum permissible concentrations (MPC) if dispersal was assured. However, one must take into account the tendency of radionuclides to concentrate in certain organisms and to get into food chains. Concentration factors of 1000 for caesium in the flesh of bass have been found, of 8,700 in the bones of the blue gills, of 350,000 for radioactivity content in caddis fly larvae, 40,000 for duck egg yolks and 75,000 for adult swallows. Table 7 shows estimated concentration factors for some radionuclides in aquatic organisms.

Phytoplankton also tend to concentrate activation products such as zinc 65, or cobalt 60, iron 55 and manganese 54 to an even greater extent than fission products.

When breeder reactors are introduced plutonium emissions will also become a concern.

The management of concentrated and highly radioactive wastes is a serious problem deserving far more study. Table 2 provides an estimate of accumulated wastes for 1970, 1930 and 2000.

Domestic and agricultural wastes

Dredged wastes from urban areas contain sediment, sewage solids, agricultural and in-

dustrial wastes. These also tend to be deposited in rivers or coastal waters. The total amount deposited in this way is estimated at between 150 and 220 million metric tons per year, and appears to be increasing at 4 per cent per annum.

World production and consumption of chemical fertilizers (except during periods 1914-18 and 1940-45) have doubled or tripled in each decade. Total world use in 1963-64 exceeded 33 million metric tons, only 10 per cent of which were used in developing countries. Their share, however, is increasing rapidly.

Present annual world production of pesticides is probably about 1 million metric tons. It is likely to go on increasing in view of the increasing world food shortage and because of diminishing returns on their use. Thus to double world food production which as we have seen is likely to be necessary, it will be necessary to increase consumption by no less than six times (see Table 12).

In the industrialized countries there is likely to be a move away from DDT to less persistent but more toxic pesticides such as phorate, dimeton, parathion, etc. These require more frequent sprayings to make up for their reduced persistence. It is unlikely that the developing countries will be able to afford them, so consumption of DDT is likely to continue growing.

SCEP points out the way in which agriculture becomes increasingly dependent on the use of these poisons: "Realisation that the use of pesticides increases the need to continue their use is not new, nor is the awareness that the constant use of pesticides creates new pests. For many of our crops on which pesticide use is heavy, the number of pests requiring control increases through time. In a very real sense, new herbivorous insects find shelter among our crops where their predator enemies cannot survive. Fifty years ago most insect pests were exotic species, accidentally imported to a country lacking their natural enemies. More recently many of the pests, including especially the mites, leaf-rolling insects, and a variety of aphids and scale insects, have been indigenous. Thus pesticides not only create the demand for future use (addiction), they also create the demand to use more pesticide more often (habituation). Our agricultural system is already heavily locked into this process, and it is now spreading to the developing countries. It is also spreading into forest management. Pesticides are becoming increasingly 'necessary' in more and more places. Before the entire biosphere is 'hooked' on pesticides, an alternative means of coping with pests should be developed."

Of all pesticides, DDT is the most commonly used, and is now present in the fatty tissue of animals in every part of the world. Its effects are well documented. SCEP summarizes some of the implications:

"The oceans are an ultimate accumulation site of DDT and its residues. As much as 25 per cent of the DDT compounds produced to date may have been transferred to the sea. The amount in the marine biota is estimated to be in the order of less than 0.1 per cent of total production and has already produced a demonstrable impact upon the marine environment.

"Population of fish-eating birds have experienced reproductive failures and population declines, and with continued accumulation of DDT and its residues in the marine ecosystem additional species will be threatened. The decline in productivity of marine food fish and the accumulation of levels of DDT in their tissues can only be accelerated by DDT's continued release to the environment.

"Certain risks in the utilisation of DDT are especially difficult to quantify, but they require most serious consideration. The rate at which it degrades to harmless products in the marine system is unknown. For some of its degradation products, half-lives are cer-

tainty of the order of years, perhaps even of decades. If most of the remaining DDT residues are presently in reservoirs which will in time transfer their contents to the sea, we may expect, quite independent of future manufacturing practices, an increase level of these substances in marine organisms. And if, in fact, these compounds degrade with half-lives of decades, there may be no opportunity to redress the consequences. The more the problems are studied, the more unexpected effects are identified. In view of the findings of the past decade, our prediction of the hazards may be vastly underestimated."

Heavy metals

Pollution by heavy metals also gives cause for concern. "Some heavy metals are highly toxic to plants and animals including man. They are highly persistent and retain their toxicity for very long periods of time. Some have been used extensively as pesticides and have been dispersed into the environment as pesticides, as uncontrolled industrial wastes and emissions and other means." Much enters natural water systems through sewage discharges and only a portion is removed by normal sewage treatment.

Those heavy metals that are most toxic, persistent and abundant in the environment have been selected by SCEP for special review. These include mercury (Hg), lead (Pb), arsenic (As), cadmium (Cd), chromium (Cr), and nickel (Ni). Most heavy metals are vapour or many mercury compounds can produce mercury intoxication when inhaled by man. Acute mercury poisoning, which can be fatal or cause permanent damage to the nervous system, has resulted from inhalation of 1,200 to 8,500 micrograms per cubic meter of mercury. The more common chronic poisoning (mercurialism) which also affects the nervous system is an insidious form in which the patient may exhibit no well-defined symptoms for months or sometimes years after exposure."

Mercury is also dangerous when ingested in food. In Japan 111 cases of mercury poisoning occurred (with 44 deaths) a result of eating fish taken from Minamata Bay. Another outbreak biologically accumulated in the bodies of organisms, remain for long periods of time, and function as cumulative poisons. Table 4 indicates world production of these metals between the years 1963 and 1968 and illustrates the rate at which it is increasing.

It may be worth looking more closely at the problem of mercury pollution which is particularly topical.

SCEP quotes Stockinger: "Elemental mercury and most compounds of mercury are

protoplasmic poisons and therefore may be lethal to all forms of living matter. In general, the organic mercury compounds are more toxic than mercury vapour or the inorganic compounds. Even small amounts of mercury occurred at Big Niigata City with 26 cases (and five deaths)."

Mercury's toxicity is permanent. In addition when fish, shellfish, birds or mammals containing mercury are eaten by other animals the mercury may be absorbed and accumulated.

Industrial wastes and agricultural pesticides have caused severe mercury contamination in waters in Japan, Sweden and the U.S. Its use is increasing throughout the world and it "threatens to become critical in the world environment." Moreover, as SCEP points out mercury is but one of approximately 2 dozen metals that are highly toxic to plants and animals.

Oil pollution

We tend to regard oil pollution of the seas as caused principally by accidental spills like that of the Torrey Canyon. Such accidents cause the most evident damage, "but they make up less than 10 per cent of the estimated 2.1 million metric tons of oil that man introduces directly into the world's waters. At least 90 per cent originates in the normal operations of tankers, other ships, refineries, petro-chemical plants, and submarine oil-wells; from disposal of spent lubricants and other industrial and automotive oils; and by fall-out of airborne hydrocarbons emitted by vehicles and industry (see Table 6)."

The actual amount that goes directly into the seas must be taken as proportionate to production. It is normally estimated at 0.1 per cent of production but if possible fall-out of airborne hydrocarbons on the sea surface is added it may be as much as 0.5 per cent.

This is because estimated emissions of hydrocarbons of petroleum origin to the air is 90 million tons, 40 times that emitted to the seas. Nobody knows how much may finally settle in the seas. SCEP points out that if "10 per cent does, then the total hydrocarbon contamination of the oceans could be almost five times the direct influx from ships and land sources."

The increase in the size of tankers must make things worse. The danger of large-scale accidents will increase with the scale of the tankers. 800,000 ton tankers are projected. "A single spill from one of these would add 20 per cent to the amount of oil entering oceans in a single year" (SCEP). Cleaning up oil spills does more harm than good "even with a non-toxic dispersant, the dispersed oil is

much more toxic to marine life than is an oil slick on the surface". (SCEP).

The effect of spills in shallow water is particularly damaging. Thus "an accidental release of 240 to 280 tons of No. 2 fuel oil from a wrecked barge off West Falmouth, Massachusetts in 1969 caused an immediate massive kill of organisms of all kinds—lobsters, fish, marine worms and mollusks."

The difficulty of estimating biological effects in coastal waters is that "many other pollutants are also present in this zone and it is hard to separate their different effects. Indeed, the effects may not be separable, but instead additive or mutually reinforcing."

One possible effect of oil dispersed over wide ocean areas could arise from the fact that "chlorinated hydrocarbons such as DDT and Dieldrin are highly soluble in oil film. Measurements . . . in Biscayne Bay, Florida showed that the concentration of a single chlorinated hydrocarbon (dieldrin) in the top 1 millimetre of water containing the slick was more than 10,000 times higher than in the underlying water . . . We know that the small larval stages of fishes and both the plant and animal plankton in the food chain tend to spend part of the night hours quite near the surface, and it is highly probable that they will extract, and concentrate still further, the chlorinated hydrocarbons present in the surface layer. This could have seriously detrimental effects on these organisms and their predators."

Implicit throughout this study is the knowledge that these ecologically disruptive trends cannot be allowed to persist indefinitely. SCEP concludes "In general, the expected losses from present impacts do not exceed our capacity to carry the burden; this leads us to the conclusion that an intractable crisis does not now seem to exist. Our growth rate, however, is frightening. The impact of two, four, or eight times the present ecological demand will certainly incur greater losses in the environment. If the process of change were gradual, the present ecological advantage that is reflected in our 5 to 6 per cent annual growth would taper off in the face of decreased environmental services, and growth would be correspondingly slowed. Instead, the risk is very great that we shall overshoot in our environmental demands (as some ecologists claim we have already done), leading to cumulative collapse of our civilisation. It seems obvious that before the end of the century we must accomplish basic changes in our relations with ourselves and with nature. If this is to be done, we must begin now. A change system with a time lag of ten years can be disastrously ineffectual in a growth system that doubles in less than fifteen years."

TABLE 1.—DARMSTADTER'S PROJECTION OF WORLD ENERGY CONSUMPTION IN 1980

	Solid			Liquid		Gas		Hydro ^a		Nuclear ^a		Overall	
	A ¹	10 ¹² kWh(t) ²	Percentage of World Con- sumption	10 ¹² kWh(t) ²	Percentage of World Con- sumption	10 ¹² kWh(t) ²	Percentage of World Con- sumption	10 ¹² kWh(t) ²	Percentage of World Con- sumption	10 ¹² kWh(t) ²	Percentage of World Con- sumption	10 ¹² kWh(t) ²	Percentage of World Con- sumption
Developed countries:													
United States.....	3.5	5.0	17.3	9.4	25.3	8.3	41.9	0.34	18.1	0.98	52.0	24.0	26.8
Canada.....	5.5	0.3	0.9	1.2	3.2	1.0	4.8	0.22	11.6	0.05	2.8	2.8	3.0
Western Europe.....	4.0	2.7	9.4	9.2	24.9	2.1	10.3	0.46	24.1	0.63	33.5	15.1	16.8
Communist Eastern Europe.....	4.6	3.6	12.5	1.5	3.9	0.7	3.5	0.02	1.2	0.04	2.1	5.9	6.6
U.S.S.R.....	6.5	5.7	19.7	5.2	14.0	5.9	29.8	0.29	15.3	0.04	2.1	17.1	19.1
Japan.....	7.9	0.5	1.9	3.5	9.5	0.1	0.4	0.11	5.7	0.11	5.6	4.3	4.9
Oceania.....	4.8	0.4	1.3	0.4	1.2	0.1	0.7	0.04	2.1	0.01	0.3	1.0	1.1
Total.....	4.7	18.2	63.0	30.4	82.0	18.2	91.4	1.48	78.1	1.86	98.4	70.2	78.3
Developing countries:													
Communist Asia.....	7.6	7.3	35.4	0.7	2.0	(4)	0.04	2.2	0.01	0.4	8.1	9.1	
Other Asia (exc. Japan).....	8.5	2.3	3.1	2.4	6.5	0.4	2.2	0.14	7.3	0.02	1.0	5.2	5.8
Africa.....	6.5	0.9	0.6	0.7	1.9	0.2	0.9	0.06	3.0	0.00	0.2	1.8	2.0
Other America.....	7.4	0.2	7.9	2.8	7.6	1.1	5.5	0.18	9.4	0.00	0.2	4.3	4.8
Total.....	7.7	10.7	37.0	6.6	18.0	1.7	8.6	0.42	21.9	0.03	1.6	19.4	21.7
World total.....	5.2	28.9	10.0	37.0	100.0	19.9	100.0	1.90	100.0	1.89	100.0	89.6	100.0

Source: Estimated by Joel Darmstadter in *Energy and the World Economy* (to be published by the Johns Hopkins Press for Resources for the Future Inc.).

¹ Col. A contains the projected average annual percentage of growth in energy consumption for 1965-80.

² Converted from metric tons coal equivalent by using 27.3×10^6 Btu/m.t.c.e. and 0.293×10^{-3} kWh(t)/Btu.

³ Darmstadter follows the U.N. system of evaluating hydro and nuclear electricity. This means that it is used for both nuclear and hydropower the system used by the Group only for hydropower. Darmstadter's actual figures were in metric tons of coal equivalent and were converted to kWh (both thermal and electrical in this case) at the U.N. rate of 1,000 kWh per 0.125 m.t.c.e. (for the factor see U.N. World Energy Supplies or the Appendix of any recent U.N. Statistical Yearbook).

⁴ Unknown, but believed to be small.

TABLE 2.—RADIOACTIVE WASTES AS A FUNCTION OF EXPANDING U.S. NUCLEAR POWER

	Calendar years				Calendar years		
	1970	1980	2000		1970	1980	2000
Installed nuclear capacity (megawatts-electric).....	11,000	95,000	734,000	Accumulated fission products, (megacuries): ²			
Volume high-level liquid waste: ^{1,2}				Sr ⁹⁰	15	750	10,800
Annual production (gallons per year).....	23,000	510,000	3,400,000	Kr ⁸⁵	1.2	90	1,160
Accumulated volume (gallons): ²	45,000	2,400,000	39,000,000	H ³	0.04	3	36
				Total for all fission products.....	1,200	44,000	860,000
				Accumulated fission products (tons).....	16	388	5,350

¹ Based on 100 gals. of high-level acid waste per 10,000 thermal megawatt days (MWD) irradiation.² Assumes 3-year lag between dates of power generation and waste production.³ Assumes wastes all accumulated as liquids.

Source: Snow, 1967 (reproduced from SCEP).

TABLE 3.—CO₂ PRODUCED BY FOSSIL FUEL COMBUSTION, 1950-67

[Billions of metric tons]

Year	Coal	Lignite	Refined oil fuels	Natural gas	Total	Year	Coal	Lignite	Refined oil fuels	Natural gas	Total
1950.....	3.7	0.9	1.4	0.4	6.4	1960.....	5.0	1.4	3.1	1.0	10.5
1951.....	3.8	.9	1.7	.5	6.9	1961.....	4.5	1.5	3.3	1.0	10.3
1952.....	3.8	.9	1.8	.5	7.0	1962.....	4.6	1.5	3.5	1.1	10.7
1953.....	3.8	.9	1.9	.5	7.1	1963.....	4.8	1.6	3.8	1.2	11.4
1954.....	3.8	.9	2.0	.6	7.3	1964.....	5.0	1.7	4.2	1.3	12.2
1955.....	4.1	1.0	2.2	.6	7.9	1965.....	5.0	1.7	4.5	1.5	12.7
1956.....	4.4	1.1	2.4	.7	8.6	1966.....	5.1	1.7	4.8	1.6	13.2
1957.....	4.5	1.3	2.5	.7	9.0	1967.....	4.8	1.7	5.2	1.7	13.4
1958.....	4.6	1.4	2.6	.8	9.4						
1959.....	4.8	1.4	2.8	.9	9.9	1980 (estimated).....	11.1		10.8	4.0	26.0

Note: Reproduced from SCEP.

TABLE 4.—WORLD PRODUCTION¹ AND U.S. CONSUMPTION² OF TOXIC HEAVY METALS

[In thousands of metric tons]

1960-1964										1965-1968											
Year	Hg		Cd		Pb		Cr ₂ O ₃		Ni		Year	Hg		Cd		Pb		Cr ₂ O ₃		Ni	
	World	U.S.	World	U.S.	World	U.S.	World	U.S.	World	U.S.		World	U.S.	World	U.S.	World	U.S.	World	U.S.	World	U.S.
1960		1.77		4.53		930		1,110		98.2	1965	9.24	2.54	11.9	4.75	2,700	1,130	4,810	1,440	425	156
1961		1.92		4.65		932		1,090		108	1966	9.51	2.46	13.0	6.60	2,860	1,200	4,390	1,330	414	171
1962		2.26		5.56		1,010		1,030		108	1967	8.36	2.40	12.9	5.28	2,880	1,150	4,300	1,230	441	158
1963	8.28	2.70	11.8	5.19	2,520	1,060	3,920	1,080	340	114	1968	8.81	2.60	14.1	6.05	3,000	1,200	4,730	1,200	480	144
1964	8.81	2.81	12.7	4.31	2,520	1,090	4,150	1,320	372	134											

¹ 1963 data are from the Minerals Yearbook, 1967; 1964-1968 data far from the Minerals Yearbook, 1968.² Chemical Economics Handbook, 1969.³ Minerals Yearbook, 1968.

TABLE 5.—MAN-INDUCED RATES OF MOBILIZATION OF MATERIALS WHICH EXCEED GEOLOGICAL RATES, AS ESTIMATED IN ANNUAL RIVER DISCHARGE TO THE OCEANS

[In thousands of metric tons per year]

Element	Geological rates ¹ (in rivers)		Man-induced rates ² (mining)	Element	Geological rates ¹ (in rivers)		Man-induced rates ² (mining)
Iron.....		25,000	319,000	Phosphorus.....		180	16,500
Nitrogen.....		8,500	9,800	Molybdenum.....		13	57
Manganese.....		440	1,600	Silver.....		5	7
Copper.....		375	4,460	Mercury.....		3	7
Zinc.....		370	3,930	Tin.....		1.5	166
Nickel.....		300	358	Antimony.....		1.3	40
Lead.....		180	2,330				

¹ Bowen 1966.² United Nations Statistical Yearbook, 1967. Data for mining except where noted.³ Consumption.

TABLE 6.—ESTIMATES OF DIRECT LOSSES INTO THE WORLD'S WATERS, 1969

[Metric tons per year; reproduced from SCEP]

	Loss	Percentage of total loss
Tankers (normal operations):		
Controlled.....	30,000	1.4
Uncontrolled.....	500,000	24.0
Other ships (bilges, etc.).....	500,000	24.0
Offshore production (normal operations).....	100,000	4.8
Accidental spills:		
Ships.....	100,000	4.8
Nonships.....	100,000	4.8
Refineries.....	300,000	14.4
In rivers carrying industrial automobile wastes.....	450,000	21.6
Total.....	2,080,000	100.0

TABLE 7.—ESTIMATED CONCENTRATION FACTORS IN AQUATIC ORGANISMS

Radionuclide	Site	Phyto-plankton	Filamentous algae	Insect larvae	Fish
Na ²⁴	Columbia River.....	500	500	100	100
Cu ⁶⁴	do.....	2,000	500	500	50
Rare earths.....	do.....	1,000	500	200	100
Fe ⁵⁹	do.....	200,000	100,000	100,000	10,000
P ³²	do.....	200,000	100,000	100,000	100,000
P ³²	White Oak Lake.....	150,000	850,000	100,000	30-70,000
Sr ⁹⁰ -Y ⁹⁰	do.....	75,000	500,000	100,000	20-30,000

Source: Eisenbud, 1963 (reproduced from SCEP).

APPENDIX B: SOCIAL SYSTEMS AND THEIR
DISRUPTION

The activities of industrial man are having a very serious effect on society. They can be shown to be leading to its disintegration, and it can also be shown that such pathological manifestations as crime, delinquency, drug addiction, alcoholism, mental diseases, suicide, all of which are increasing exponentially in our major cities, are the symptoms of this disintegration.

Unfortunately, before we can understand why and how this is happening, we must know a little more about human society. Sociology, which should provide us with this information, is failing to do so, mainly because it is studying human society "in vacuo", i.e. without reference to behaviour at other levels of organisation. This is the result of regarding man and the societies he develops as unique, and in some way exempt from the laws governing all the other parts of the ecosystem. If we establish this false dichotomy between man and other animals it is partly because we fail to understand the nature of the evolutionary process. Thus, owing to our tendency towards subjective classification, we recognise that certain events among which a connection can be made within our immediate experience can be regarded as constituting one process, while, on the other hand, we refuse to admit that this can be the case with events whose connecting bond lies outside our experience. Thus we are willing to admit that the development of a foetus into an adult is a single process, and that it is difficult to examine, separately and in isolation, any of its particular stages apart from the process as a whole. On the other hand, we are less ready to regard evolution in this way.

We still imply that radical frontiers exist between life at different levels of complexity, in spite of the fact that they are part of the same evolutionary process. Yet, it can be demonstrated that no such frontiers obtain. When Kohler synthesised urea, the barrier between the "organic" and the "inorganic" was suddenly shattered, as was that between the "animate" and "inanimate" when the virus was found to manifest certain features associated with life on being confronted with a source of protein, and at other periods to display the normal behaviour pattern of a crystal. Again, it has been demonstrated repeatedly that no barrier exists separating man from other animals. He is more "intelligent" and that is about all that can be said.

If human societies are not unique, their functions cannot be understood apart from that of other natural systems, such as ecosystems and biological organisms, i.e. in the light of a general theory of behaviour.

To understand this, one must first realise that the vast and chaotic human societies in which we are living are by no means normal. If man has been on this planet for a million and a half years, which is possible, it is only in the last 150 years that he has become an industrialist, and that industry has permitted the development of such societies. This represents no more than two days in the life of a man of 50.

For more than one million four hundred and ninety thousand years he earned his living as a hunter-gatherer. During all this time, there is no reason to suppose that the societies he developed were in any way less adapted to their respective environments than are those of non-human animals.

From our knowledge of surviving hunter-gatherer societies, such as the Bushmen of the Kalahari, one can presume that they probably consumed less than a third of the available food resources. They did not clear forests for agricultural land, nor did they hack down trees for building houses, nor were they so short-sighted as to exterminate the wild animals on which they depended for their livelihood.

At the same time they avoided increasing their population over and above that which might lead them to have to alter their life-style in any way.

Even if one considers an area overpopulated, as does Professor Ehrlich,¹ "when human numbers are pressing against human values", and not just when they actually starve, then such societies were never overpopulated.

What is more, the survival of such societies was compatible with that of climax ecosystems, to which they contributed by fulfilling within them their various ecological functions. Take the case of the Plains Indians of North America who lived off the vast herds of bison. They did not, on the whole, attack the main herd, which would have been a dangerous undertaking, but rather killed off the stragglers; the old and the weak, thereby exerting quantitative and qualitative controls on these animals.

It is significant that exactly the same is true of the lions living off the buffalo herds in East Africa.

If human societies for 99.75 per cent of their tenancy of this planet, behaved as an integral part of our ecosystem (before the invention of agriculture 10,000 years ago and industry 150 years ago) it is unreasonable to suppose that such behaviour is not subject to its laws.

Nor is there any reason why sociology should be anything but a branch of the natural sciences, that which deals with a particular type of natural system: the human society.

Let us briefly look at human society in this light.

First of all, like all other natural systems, a human society displays organisation. This is probably its most important feature. If one gathers on an island a random collection of people from different societies speaking different languages it would be naive to suggest that these constituted a society. Nevertheless there would be a tendency for organisation, or negative entropy, to build up (or entropy and randomness to be reduced). First of all men would pair off with women and have children. Families would be formed and groups of these families would tend to be associated and grow into small communities. As this occurred so their members would develop more and more things in common. They would learn to speak the same language and dress, eat and build their houses in a similar way. Slowly a common set of values and aspirations would emerge, and these would bind them together in a common purpose and transform them into a true society.

This organisational process is not a linear one. Thus, in its development from the simple to the complex, matter passes through certain critical stages, where the possibilities of a particular type or organisation are exhausted and further advance can only be achieved by the development of a new type.

Thus, an atom can be developed only up to a certain point. This point will vary with different types of atoms, some of which, such as the tungsten atom, are relatively large.

Beyond this critical point, however, development can occur only by the association of several atoms together to form a molecule. As soon as the latter stage is reached, the constituent atoms undergo a considerable change, in that a radical division of labour occurs, in accordance with the law of economy.

To explain their behaviour now requires the introduction of several new principles.

There is no reason to suppose that this notion of levels of organisation does not apply equally well to human social systems. Thus the family, which clearly represents the first level of human organisation, is a universal feature of all human societies, and there is

no example of its suppression without the most serious social consequences. The family is held together by bonds which are extendable in the sense that the stimuli required for triggering off the corresponding behavioural responses are not specific as in the case of simpler forms of life.

For example, not only a mother, but a mother-like figure, can trigger off filial responses, or vice-versa.² It is this feature of the family bonds which permits the development of larger social units. The latter can, of course, be of many kinds. They can be bilateral extended families, or unilateral, or the members of the different families constituting these units need not be related at all, as mere contiguity is sufficient to allow the development of such bonds.³ Another essential characteristic of the family bonds is that they cannot be extended indefinitely. This is a feature of all bonds, whether they be holding together the nucleus of an atom or the solar system. A point must, therefore, be reached where the bonds cannot be extended any further, and development only becomes possible by the association of a number of such units. At this point it can be said to have reached a new level of organisation.

Once we pass the level of the village, clan or lineage, we reach a level of social organisation that has not often been achieved by the human species. To harness the family bonds in such a way as to build up a larger unit requires the development of very elaborate forms of organisation. This involves "criss-cross" bonds that permit the establishment of a veritable cobweb of associations of one sort or another, all of which transcend each other in such a way that each individual is linked to each other member of the society in at least one, and preferably more ways.

Thus a tribesman is at once a member of a family, of a maternal and of a paternal kinship group. As neither of these may coincide with the social unit that is the village in which he lives, he is a member of yet another group: the village. He is also likely to be a member of an age grade, of a secret society of some sort, possibly also of a military club and of some other group with a common economic activity. Such a man has a very definite status which Linton⁴ defines as "The sum total of all the statuses which he occupies and hence his position with relation to the total society."

The same principle is apparent in the more stable segment of our modern societies. As Linton writes: "... the status of Mr. Jones as a member of his community derives from a combination of all the statuses which he holds as a citizen, as an attorney, as a Mason, as a Methodist, as Mrs. Jones' husband, and so on." As a result of such criss-cross associations, a man is in contact with a very large number of cross-sections of the society. There is what Ortega y Gasset⁵ calls "social elasticity".

All the parts of the society are in contact with each other. Any change in the society will, therefore, effect each individual and the actions of each individual must effect the society as a whole through the agency of all the associations of which he is a member.

Without social elasticity there would be no bonds, no organisation: in fact no real society. Yet social elasticity can only be maintained in special conditions. Thus it is likely that if the society grows too big, the bonds holding it together become of an ever more precarious nature and eventually incapable of holding it together.

The social system is, in fact, overloaded, with more people than it is capable of organising into a society. Its essential structure breaks down, and it ceases to be capable of self-regulation.

As already mentioned, it is a basic feature of all bonds that there is a limit to their extendability. Those holding together a community which are already extensions of the family ones, cannot be extended to hold

Footnotes at end of article.

together more than a certain number of people. Aristotle considered that a city could be made up of no more citizens than could not know each other by sight. The Greek city states which displayed some of the features of self-regulating units, were, in fact, very small. Only three had more than 20,000 citizens (Athens, Corinth and Syracuse). It is significant that a recent study of America has revealed that the crime rate appears to be proportionate to the size of the city. Violent crime appears to be about six times greater *per capita* in cities of 1 million people than in cities of 10,000.

Social elasticity is also seriously affected by mobility. It is impossible to create sound societies when people are being constantly moved from place to place. In such conditions, the towns are not made up of people who have grown up together and among whom bonds have had time to develop, but simply of people who have been thrown together for various random reasons. Bonds cannot be manufactured at will. Nor can that socialisation process that will enable people to fulfil their specific functions within their social system be compressed into a few years of adult life. It is a slow, educative process, the most important part of which must occur in the early years of life—when the generalities of a cultural pattern, i.e. its basic goals and values, are inculcated via the family and the small community.

To understand this principle, it is necessary to see how cultural information is used to determine the adaptive and self-regulatory behaviour of a social system, in fact, how the basic cybernetic model applies to a society.

If a society is capable of self-regulation behaviour, it is that its responses are based on a model of its relationship with its environment, in the light of which they are being continually monitored. Such a model is a society's world-view, or "Weltanschauung", which is compounded of its religion, mythology, traditional law, etc.

As soon as one understands a society's culture, one understands the reason for its behaviour and all its actions that previously appeared random or irrational, now appear quite logical. The following example illustrates this point.

It is well known that some Australian aborigines failed to establish a cause and effect relationship between copulation and conception. Instead, they generally believed that the spirits of children yet unborn, which were apparently referred to as "ngargalulla", inhabited some strange world from which they only emerged when dreamt of by their mothers. Daisy Bates⁶ tells us that among the Koolarrabulloo it was the father who had to have such a dream:

"They believed that below the surface of the ground and at the bottom of the sea, was a country called Jimbin, home of the spirit babies of the unborn, and the young of all the totems. In Jimbin there was never a shadow of trouble or strife or toil or death: only the happy laughter of the little people at play. Sometimes these spirit babies were to be seen by the jaingangooroo, the witch-doctors, in the dancing spray and sunlight of the beaches, under the guardianship of old Koolibai, the mother-turtle, or tumbling and somersaulting in the blue waters with Pajjalburra, the porpoise . . .

" . . . So firm was the belief in the 'ngargalulla' that no man who had not seen it in his sleeping hours would claim the paternity of a child born to him. In one case, that came under my observation, a man who had been absent for nearly five years in Perth proudly acknowledged a child born in his absence, because he had seen the 'ngargalulla', and, in another, though husband and wife had been separated not a day, the man refused absolutely to admit paternity. He had not dreamed the 'ngargalulla'. Should a boy arrive when a girl came in the dream, or

should the ngragalulla not have appeared to its rightful father, the mother must find the man who has dreamed it correctly, and he is ever after deemed to be the father of that child."

It is evident that, if we were not aware of this aspect of the world-view or model of the Koolarrabulloo, we would find their attitude towards the acceptance of paternity totally illogical. However, once we were acquainted with their model, their attitude would appear quite reasonable, and could even be predicted with a fair measure of probability. There is no reason why all seemingly irrational behaviour can be explained on the basis of a cultural model of this sort.

We regard as "rational", behaviour which is based on our cultural model of the world and which somewhat presumptuously we regard as the only valid one. However, if we realised that the object of cultural information is to mediate the behaviour that will lead a society to adapt to its particular environment, it then becomes apparent that whether or not this information constituted "scientific" knowledge is irrelevant, and hence our particular scientifically based culture is in no way superior to those developed by the most primitive societies.

Equally important is the fact that a culture also provides a society with a goal-structure and a means of achieving it. The goal of all self-regulating societies appears to be the acquisition of social prestige. It is important to realise that this goal is only possible in a closely knit society, in which there is fundamental agreement as to what are the determinants of prestige. These will vary in each society. In general one can say that these will coincide with the qualities that must be cultivated if the society is to survive. Thus in a society of hunter-gatherers, success in a hunt is likely to be a determinant of prestige; among societies involved in war-like pursuits courage is likely to be particularly prestigious. The prestige achieved will determine one's position in the social hierarchy. This hierarchy is of immense importance in avoiding strife and in ensuring a socially acceptable division of labour among the members of the society. If there is no hierarchy there will be constant bickering and fighting. There will also be no mechanism for ensuring the perpetuation of those qualities required if the society is to survive. Hierarchy is another word for organisation. There are only two ways of dispensing with it: one is to accept chaos and with it asystemic controls such as dictators, the other is to reduce the size of the society. In an extremely small social grouping such as the Kalahari Bushmen and the Pygmies of the Ituri Forest, the requirements for hierarchy is reduced to a minimum, and very stable egalitarian societies are possible. However, as the size of the groupings increases so must the requirement for hierarchy.

Each society has a whole set of beliefs regarding the supernatural forces that can be exploited to enable individuals, associations and society as a whole to achieve their ends.

Many ceremonies and rituals are performed to this end, all of which have the additional effect of tightening social bonds, and hence of further increasing social organisation. At the same time, every society has a set of taboos, basically to prevent supernatural forces from being mobilised to hinder the achievement of the society's goal-structure.

There is every reason that the goal that self-regulating societies set themselves is one whose achievement permits the satisfaction of the environment's many competing requirements and is not purely arbitrary as in the case of our society.

This may be illustrated by the way in which the size of the simple society is determined. Thus, if the Eskimos live in small family units during the summer months, it is because there is no need for a larger unit, in-

deed the arctic areas they inhabit would not support one. If the Pygmies of the Congo live in small bands it is because this is the ideal number of people for survival in tropical rain forests, possibly providing the minimum number of hunters required to trap an elephant. If the society is truly self-regulating, however, it should be capable of reducing or increasing complexity to permit adaptation to changing environmental conditions—so long as these occur within certain limits. Thus when faced with the Macedonian menace, it would have been adaptive for the Greek city states to join together to form a league, i.e. to achieve a higher level of organisation. This they never really succeeded in doing, though there were many attempts.

On the other hand, in the absence of environmental challenges requiring action on the part of a larger, more complex social unit, it would be adaptive for complexity to be reduced, for the society to break up, temporarily at least, into its constituent parts. Usually, however, institutional barriers prevent this from occurring. Central governments are jealous of the territories that they control and usually refuse to face reality, once environmental conditions render superfluous and artificial the states that they control.

The important thing is that a self-regulating society must be goal-directed. It moves in a particular direction, and both the goal towards which it is moving, and that behaviour pattern that permits its achievement, are culturally determined.

For the society to keep moving in this direction, it means that all its members must be imbued with the cultural information that will enable them to fulfil their specific functions as specialised members of their social system. It also means that every cultural trait which we often tend to regard as being of little practical significance, and which our missionaries, educators, administrators, etc., are only too pleased to interfere with, has a specific function in the overall social behaviour pattern.

If one were acquainted with the culture of any stable society and were capable of working out the role played by each of the customs and institutions within this culture, i.e. by determining in what way they contributed towards the adaptive behaviour of the society to its particular environment, one could easily imagine what would be the consequences of their suppression by outside interference. Let us take the case of the marital customs of the Comorians, who inhabit a group of islands between Mozambique and Madagascar. The people of the Comores have a complex social organisation, probably based on indigenous customs upon which were superimposed those of their Islamic conquerors. From the former they inherited a matrilineal and matrilocal tradition; from the latter a patrilineal and patrilocal one. Islamic marital law has also been adopted. As a result, there is polygamy and a high frequency of divorce. Indeed, so high is the latter that it is perfectly normal for a woman to have been married five to ten times. From the experience gained in our society, we would tend to associate such a consequent number of "broken homes", with a very high rate of juvenile delinquency, schizophrenia and suicide, i.e. the symptoms of social disorder. However, things do not work out that way.

In Mayotte, one of the islands making up the Comores Archipelago, there have been only two deaths by violence in the last fifty years, and neither were premeditated murders. Crime in general is minimal, as are mental diseases, delinquency, suicide and the other symptoms of social disorder.

The society is thus culturally adapted to marital instability, which ours is not. The reasons are two-fold. First, by virtue of the institution of matrilinearity and matrilocality, a child is partly the responsibility of the mother's clan. Many of the functions of fa-

therhood are in fact fulfilled by the mother's elder brother, and inheritance, for instance, is primarily through him rather than through the father. Secondly, by custom, the step-father automatically assumes many of the responsibilities of fatherhood, *vis-a-vis* the children that his new wife has had with previous husbands. The step-father, or "baba combo", is, in particular, responsible for the payment of the very large expenses involved in the circumcision ceremony of his stepsons. Also, the father's role is reduced by the fact that the children are brought up in the mother's home. As the father probably has several other wives, he will in any case only be physically present in one particular house on one or two days a week. For all those reasons, divorce does not have the same unsettling effect in the Comores that it does in our society. Now, supposing a missionary or administrator suddenly decided that matrilinearity and matrilocality were vestiges of barbarity not to be found in modern civilised societies, and that they must, therefore, be abolished; unless he abolished at the same time many of the other customs making up this complex culture, the results would be disastrous. Schizophrenia, delinquency, and the other symptoms of social disorder would result, as they do in our society with the break-up of the nuclear family.

What is particularly striking about the self-regulating society is the absence of these forms of deviation. Crime is, in fact, an extremely rare occurrence in spite of the fact that there are no policemen, lawcourts, tribunals, etc. Indeed in such a society, there is no need for external controls of this sort. Systemic controls, i.e. those controls applied by the society as a whole through the medium of public opinion, are sufficient to prevent any deviation from the accepted norm.⁴

As Linton writes: "The Eskimos say that if a man is a thief no one will do anything about it, but the people will laugh when his name is mentioned. This does not sound like a severe penalty but it suffices to make theft almost unknown. Ridicule will bring almost any individual to terms, while the most stubborn rebel will bow before ostracism or the threat of expulsion from his group."

Besides in a stable society, all the citizens will have the good of the society at heart. They will feel part of it and will all equally oppose the behaviour on the part of any of its members that is contrary to the established customs and that might compromise the interests of the society as a whole. Solon was once asked which was the best policed city.⁵ "The city" he replied "where all the citizens, whether they have suffered injury or not, equally pursue and punish injustice." The same spirit that Solon expressed is apparent in Pericles' celebrated speech over the bodies of the first victims of the Peloponnesian war: "... We are prevented from doing wrong by respect for authority and for the laws, having an especial regard for those which are ordained for the protection of the injured, as well as for those unwritten laws which bring upon the transgressor of them the reprobation of the general sentiment."

We regard government, parliaments, and vast bureaucracies as essential to all societies. However, it is probable that most of the societies ever developed by man dispensed with such external controls. As Lowie writes:⁶

"... it should be noted that the legislative function in most primitive communities seems strangely curtailed when compared with that exercised in the more complex civilisations. All the exigencies of normal social intercourse are covered by customary law, and the business of such governmental machinery as exists is rather to exact obedience to traditional usage than to create new precedents."

Indeed, in such societies, nothing can be

found to correspond to our notion of government. There are no kings, presidents, or even chiefs, no courts of law, prisons or police force. The closest approximation to a political institution is the council of elders that occasionally gathers to discuss important issues. It is for this reason that the Australian aboriginal tribe has often been referred to as a "gerontocracy", or as a government by the old men—a title that can aptly be applied to most simple, ordered societies.

The absence of formal institutions, rather than give rise to the permissiveness that we would expect, is in fact associated with discipline and the strictest possible adherence to the tribal code of ethics. Behavior which, in a disordered society, could only be exacted at the cost of brutal coercion, is with them ensured by the force of public opinion, the sanction of the elders, and the fear of the ancestral spirits.

In more advanced societies, we find the same principle obtaining in a less extreme form. Thus, in ordered societies where public opinion plays an important role, the need for strong government, and in particular, dictators, is correspondingly reduced.

Conversely, in these disordered societies where public opinion plays but a small part, we find that the absence of the most authoritarian government, linked to an all-pervasive and coercive bureaucracy inevitably leads to lawlessness and mob rule.

By causing the disintegration of a society, by overloading the social system with too many people, or by increasing mobility so as to prevent their proper socialisation, one is reducing the power of public opinion, and thereby the society's capacity for self-regulation. We are introducing asystemic controls in ever greater quantities: more politicians, more bureaucrats, more laws, more tribunals, so one is rendering the systemic controls ever more redundant, and further reducing a society's capacity for self-regulation.

A society used to being run in this manner ceases to be capable of running itself. In many South American republics, the deposition of one dictator will lead merely to the installation of another. Real democracy is not possible since the essential social structure for rendering it possible does not obtain. A mass democracy is, in fact, a contradiction in terms, and as our society becomes ever more massive and ever less organised, i.e. as entropy and randomness increase, so must there be a proportionate increase in the precarious asystemic controls required to maintain a semblance of social order, and a similar reduction in its stability and hence in its capacity to survive.

We can thereby formulate the essential principle that the higher the entropy or randomness of a social system, the greater must be the need for asystemic controls of which the most extreme kind is a dictator.

Such controls are as unsatisfactory in social systems as they are in eco-systems, and for the same reasons. A dictator gears his society to the achievement of what is usually an arbitrary goal regardless of environmental requirements. This can therefore only increase the society's instability.

As we have seen, it creates a need for further dictatorship by destroying natural systemic controls which it renders redundant.

It is also highly vulnerable. One can exterminate a large proportion of the population of a self-regulating society without affecting its organisation or its capacity to govern itself, whereas in a dictatorship, it suffices to kill the dictator for the society to be plunged into chaos and civil war, a point that is particularly well illustrated by the experience of the later Roman Empire.

Dictatorship, in other words, involves a drastic simplification of a society's control mechanisms, and must determine a corresponding reduction in its stability.

Our industrial society is further affecting human society by absorbing non-industrial

cultures. Whereas there were previously innumerable cultures geared to totally different ends, so, as they fall within the orbit of industrial "civilisation", they come more and more to resemble each other.

It is significant that in New Guinea, that last great reservoir of primitive cultural wisdom, there are still 700 different cultural patterns, each with its own distinct language. In such circumstances mistakes committed by one such social group are likely to have the minimal effect on the others and the probability that at least one cultural pattern provides the solution to a new environmental problem is maximised.

The absorption of these diverse highly differentiated societies into a common mass-society geared to the achievement of short-term material ends is a loss to humanity that cannot be over-emphasised.

It must seriously reduce the complexity and hence the stability of human social organisations on this planet. It must also lead to the irreparable loss of a vast store of cultural information which is as important to man's survival as is the store of genetic plant variety so seriously compromised by modern agricultural techniques.

Social disruption and its effects

There is increasing evidence that deprivation of a satisfactory family environment will affect children profoundly and colour every aspect of their later life.¹⁰ Such children are often referred to as emotionally disturbed. However bright they may be, they will tend to find it very difficult to fit into their social environment, the reason being that the early and most important stages of socialisation were badly impaired. The earlier family deprivation occurred, the more will this be the case, for as D. O. Hebb¹¹ shows, the effect of early experience on adult behaviour is universally correlated with age.

Sadly, it is rarely possible for socially deprived and emotionally disturbed children to be satisfactorily socialized. No amount of school education can do much for them.

They are characterised by their inability to accept any social constraints. They are unable to concentrate on their work and are only interested in things which are of apparent immediate advantage to them. Regardless of their intelligence level, they are thus extremely difficult to educate. They are particularly concerned with the present, and the short-term, and are predisposed to all pathological forms of behaviour such as delinquency, drug addiction, alcoholism and schizophrenia.

What is worse, when they grow up, they are unlikely to be capable of fulfilling their normal family functions; their children, consequently also deprived of a normal family environment, will in turn tend to be emotionally unstable.

John Bowlby went so far as to compare a delinquent with a typhoid carrier.¹² He is as much a carrier of disease as the latter—of a disease of the personality which will affect his family and his community for generations, until his descendants are eliminated by natural selection.

Socially deprived, emotionally disturbed youths are a feature of disintegrating societies. In the black ghettos of New York and other large American cities, they are the rule rather than the exception. There is increasing reason to suppose that the law standard of achievement and the high rate of crime, and various forms of retretism that characterise such societies are mainly attributable to family deprivation.

If a child is seriously affected by being deprived of a satisfactory family environment, an adult is also adversely affected by being deprived of a satisfactory communal environment.

As we have seen, in a stable society, a cultural pattern provides an individual with a complete goal structure and an environ-

Footnotes at end of article.

ment within which these goals can be satisfied.

In a stable society the principal goal appears to be the acquisition of prestige, to be looked up to by one's family and community.

In our industrial society, prestige is achieved in a variety of ways, including the right education, entering a socially acceptable profession and perhaps most important of all, making money.

Those who have not been subjected to the normal socialisation process and in particular members of different minority ethnic groups, may for various reasons, find these avenues of success barred to them. In such conditions they have no alternative but to develop a substitute set of goals. Cloward and Ohlin¹² interpret the development of a criminal sub-culture in the slums of a big city in these terms. It provides people with a new set of goals which they can achieve. Once crime becomes big business, and requires the same sort of qualities that permit success in the mainstream culture, then a further substitute outlet is required.

It is in these terms that Cloward and Ohlin interpret the "violent gang" subculture which also has its own ethic and goal structure, so different from the mainstream culture. However, those who have not succeeded in shedding the latter's values find themselves incapable of participating in it. They are forced to indulge in one or other form of retreatism—to isolate themselves psychologically from an environment which not only fails to provide them with an essential set of goals but also denies them.

Merton¹³ describes a retreatist in the following way: "... Defeatism, quietism and resignation are manifested in escape mechanisms which ultimately lead him to 'escape' from the requirements of the society. It is thus an expedient which arises from the continued failure to near the goal by legitimate measures and from an inability to use the illegitimate route because of internalised prohibitions, this process occurring while the supreme value of the success-goal has not yet been renounced. The conflict is resolved by abandoning both precipitating elements, the goals and the means. The escape is complete, the conflict is eliminated and the individual is asocialised."

In a disintegrating society one would tend to find sub-cultures developing along all these different lines in varying degrees, i.e. there will be an increase in delinquency, violence and all the various forms of retreatism, such as drugs, drink, strange religious cults, etc., and mental disease. Such a society will be characterised by a general feeling of aimlessness, a frantic, almost pathetic search for originality, over-preoccupation with anything capable of providing short-term entertainment, and beneath it all a feeling of hopelessness of the futility of all effort.

Crime

In the United States, according to Mr. John Mitchell, Attorney-General, crime in cities of more than 250,000 inhabitants is two and a half times that of the suburbs, which in turn is twice that of rural areas. Crime, needless to say, is on the increase. In the United States it has doubled in the last 10 years. In 1969 there were 2,471 crimes per 100,000 inhabitants. There were 655,000 violent crimes and 4,334,000 crimes against property, 14,590 murders, 36,470 rapes and 306,420 aggravated assaults. This is an increase of 12 per cent over the previous year. In the United Kingdom, crime is increasing at a similar rate. In 1970, according to a *Newsight* investigation, there were 1½ million indictable crimes, 300,000 in London alone, an increase of about 10 per cent over 1969.

Crimes of violence and burglary and battery in particular are increasing at the fastest rate, at more than 15 per cent per

annum. There are at present 66 crimes of violence per 100,000 people in the United Kingdom as opposed to 324 per 100,000 in the United States. At the present doubling rate of five years it will take approximately 12 years to achieve the US rate of 324 per 100,000 which is so bad that life in cities has become intolerable and economic activity seriously menaced.

Professor Michael Banton of the Department of Sociology, Bristol University, told the British Association for the Advancement of Science that "increased disorder is part of the price we pay for the adaptation of our social arrangements to an economic system which brings us such great material benefits".

The relationships between crime rate and urbanisation has been established in a recent study in the US (see Table 8) which shows that it is considerably higher *per capita* in cities of more than 250,000 than in small towns with a population of less than 10,000.

Crime is part of the price of affluence, or more precisely, of the social disintegration that affluence gives rise to.

Perhaps the most damning indictment of our industrial society is the behaviour of people when the elaborate mechanisms of the law are for some technical reason put temporarily out of action.

In Montreal, during a 24-hour police strike, shops were pillaged, women raped and houses burgled.

In London, during a power strike theft increased to such an extent in shops and department stores that many had to close until the light came on again.

Nothing better illustrates what can happen when the self-regulating mechanisms which normally ensure the orderly behaviour of the members of a stable society break down and are replaced by a precarious set of external controls.

Illegitimacy

As the family unit breaks down, it is not surprising to find that illegitimacy, another symptom of social disintegration, increases. Nor is it surprising to find that it is closely linked with other symptoms of social disintegration. According to W. R. Lyster, an Australian statistician, "Crime and illegitimacy rates are simultaneous in their incidence. The illegitimacy rate in England and Wales per 100 of all births has increased since 1955 from 4.7 to 7.8; crime has increased from about 45 per 10,000 to 120 per 10,000; thus, both have more than doubled."

Illegitimacy is costing our government £52 million per year. In industrial slums and other societies that have reached the more advanced stages of disintegration it is not unusual to find that up to 70 per cent of children are illegitimate.

W. A. W. Freeman, President of the Children's Officers Association, has recently reported a startling increase in the number of women who are simply abandoning their children, something which would not occur in a stable society.

Alcoholism

For each specific cultural pattern there must exist an optimum degree of alcohol consumption. It is likely that increases over and above this level will be in direct proportion to the development of disorder within the society itself. The number of offences of drunkenness proved in England and Wales for the year 1967 is greater than the number of offences proved in previous years. The increase as expected occurred in the large cities, the City of London having 476.43 offenses for each 10,000 of its population. The Home Office with characteristic ignorance of basic sociological matters writes: "No reason for the increase can be adduced. There was no significant change in the liquor licensing laws."

According to the National Council on Alcoholism, alcoholism is costing the country about £250 million a year, mainly by absenteeism from work. About seven workers out of

of every thousand have drinking problems, and there are about 400,000 alcoholics in the country, a figure which is increasing annually.

Mental health

Social disintegration is a major cause of mental disease. When an individual deprived of his essential social and physical environment is incapable of building a substitute one, or fails to isolate himself from the one he can no longer tolerate, by means of drugs or alcohol, his behaviour pattern, no longer adaptive to an environment for which it was not designed, tends to break down. One remaining position of defence is to build up his own personal world of fantasy which contains just those environmental constituents of which he has been deprived, and which he most requires.

There is considerable evidence to show that members of a society undergoing acculturation, whose culture is breaking down under the influence of an alien one are particularly prone to mental disease.

As national boundaries break down, small communities are swallowed up by vast urban conglomerations, mobility is increased and people move about the place in search of better pay, so cultural patterns break down.

In the United Kingdom, mental disease is increasing at a phenomenal rate. According to Ministry of Health statistics 189,160 people were admitted to hospitals in England and Wales in 1967 suffering from mental illness, two and a half times as many as in 1951.

There were 600,000 mentally disordered people in England and Wales in 1967, 186,901 of them occupying hospital beds or 46.6 per cent of all hospital beds. Thirty-two million working days every year are lost because of mental illness, representing a cost to the nation of £100 million, and local authorities spent £20,250,000 in mental health, more than six times what was spent in 1957.

Suicide

Durkheim regarded suicide as the ultimate manifestation of anomie. He found that the suicide rate was particularly low in poor rural communities where social structures were intact, and high in disintegrating affluent societies, especially among the working classes and even more so among immigrants, in this case Italians to the cities of Lorraine.

He goes so far as to say that "suicide varies in inverse proportion to the degree of integration of the social groups to which the individual belongs".

In Britain the suicide rate has fallen over the last six years by about 200 a year. Nevertheless, according to the Samaritans, a lay organisation that helps depressed and potentially suicidal people, the number of potential suicides has more than doubled in the last two years.

In 1967 their seven London area branches dealt with 5,999 new cases. In 1969 the same branches dealt with a further 11,641 cases. The Reverend Basil Higginson, an official of this organisation, estimates that cases would go on rising at this rate.

Conclusion

There is every reason to believe that the social ills at present afflicting our society—increasing crime, delinquency, vandalism, alcoholism as well as drug addiction—are closely related and are the symptoms of the breakdown of our cultural pattern which in turn is an aspect of the disintegration of our society. These tendencies can only be accentuated by further demographic and economic growth. It is chimeric to suppose that any of these tendencies can be checked by the application of external controls or by treating them in isolation, i.e. apart from the social disease of which they are but the symptoms.

It is the cause itself, unchecked economic and demographic growth, that must be treated. Until such time as the most radical measures are undertaken for this purpose,

Footnotes at end of article.

these tendencies will be further accentuated—until their cost becomes so high that further growth ceases to be viable.

TABLE 8.—INCREASE IN CRIME RATES WITH INCREASE IN SIZE: URBAN CRIME RATES PER 100,000 POPULATION, 1957

	Size of cities		
	Over 250,000	50,000 to 100,000	Under 10,000
Criminal homicide:			
Murder, nonnegligent manslaughter	5.5	4.2	2.7
Manslaughter by negligence	4.4	3.7	1.3
Rape	23.7	9.3	7.0
Robbery	108.0	56.9	16.4
Aggravated assault	130.8	78.5	34.0
(At this point the scale changes)			
Burglary, breaking or entering	574.9	474.6	313.3
Larceny-theft	1,256.0	1,442.4	992.1
Auto theft	337.0	226.9	112.9

Note: Reproduced by courtesy of the Pemberton Publishing Co. from "Population Versus Liberty," by Jack Parsons.

APPENDIX C: POPULATION AND FOOD SUPPLY

It is a common assumption that throughout the entire history of mankind, human populations have expanded whenever conditions permitted. Thus it is argued that during the 100,000 generations in which our forebears lived by food-collecting, the difficulties of keeping body and soul together were so great that populations were limited largely by crude food availability. Then with the adoption of agriculture, some 200 to 300 generations ago, the new-found sources of food permitted populations to expand until generally-speaking they were held down only by disease. Finally, modern public health methods, principally greatly improved sanitation and vector control procedures, permitted the phenomenal increases which collectively are known today as the population explosion.

Yet there is now good evidence that many of the human societies living before the agricultural revolution (and a few after) were stable societies in the strict sense of the phrase: i.e. they were regulated not by starvation, disease or war, but by cultural controls which only now we are beginning to understand. Why these controls disappeared we do not know. For the time being, however, we may speculate that they were lost in the cultural changes such societies must have undergone in response to the immense ecological changes brought about by each advance and retreat of glaciation during the Pleistocene Ice Age.

Since in a nutshell the problem of populations and food supply is how to live within

one's ecological means without being forced to do so by naked hunger, it is worth bearing in mind that man (like many other animals) is potentially capable of so doing. In the meantime, we are faced with the task of reducing birth rate to compensate for the fall in death rate, because daunting though it undoubtedly is, the alternative of satisfactorily feeding an expanding population is still more so. Nonetheless, so far attempts to reduce birth rates have been largely ineffective on a global scale and even if they were to be successful it is unlikely that they could produce significant reductions in population growth rates within the time scale required to avoid major food shortages.

It is argued that the raising of living standards will, of itself, limit population growth by offering economic incentives that are reduced if the ratio of wage-earners to dependents within the family group is weighted too heavily in favour of dependents. Evidence of this is contradictory, although it is true that families have become smaller in Europe as levels of material prosperity have risen. However, it is not possible that this situation can be repeated throughout the world as a whole. The planet lacks the resources to permit the industrialisation that would be required and even if these were to be found the levels of industrial activity would be greater than could be absorbed by the ecosphere. Even then, although the rate of increase would be reduced, populations would continue to grow.

The population of Britain is growing at 0.5 per cent per year, which gives it a doubling time of 138 years. While this is much lower than the world average (1.9 per cent each year) each individual within an industrial society consumes far more resources and contributes far more to environmental pollution than an individual in an agrarian society. Prof. Wayne Davis¹ considers that an American has 25 times the impact on the environment as an Indian so that, worked out in terms of "Indian equivalents", the population of the United States is equivalent to that of 5,000 million Indians. Thus the problem of population is more acute in developed than in developing countries.

We must consider whether it is possible for the planet to provide food in sufficient quantities to sustain the populations that are forecast.

Food production may be increased either by extending the area under cultivation or by intensifying production on existing farmlands, or by both. Current FAO programmes concentrate on intensifying production on existing farms.

The extension of agriculture into marginal lands is expensive in terms of investment and produces only limited returns. It is more ra-

tional to direct such capital as is available into the improvement of existing farming.

Indeed, the amount of marginal land available for agriculture is severely limited and it has been estimated that if the required increases in food production were to be met from this source alone, the reserves of land would be exhausted within a decade or less.² Of a total land area of 32.5 billion acres estimates indicate that only 3 billion are cultivated at the present time.³ Most of the world's land surface is occupied by the icecaps and permafrost, deserts, forests and urban and industrial areas. Sometimes it is suggested that the remaining tropical forests, in Amazonia in particular, might be cleared to provide agricultural land. It is unlikely that such schemes could be successful, even if the resources were available to carry them out. Experience with clearing primeval forest in Central America has shown that the removal of the climax vegetation triggers an erosion process leading to desert. The process is all but irreversible for organic matter once exposed is quickly mineralised. The unstable lateritic soils of Amazonia are 70 feet thick but they would be likely to erode very quickly if they were unprotected against the equatorial climate, while this itself would certainly be affected by the removal of such a large area of forest. When Khrushchev cleared the forests in Kazakhstan for agriculture he left a dust bowl of some 30 million acres, an area equivalent to the entire agricultural land area of the British Isles.

The US President's Science Advisory Committee estimated in 1967 that the total arable and potential arable land in the world amounted to 8 billion acres. While some expansion is possible it is unlikely that the resources of capital and materials can be made available to produce more than minor increases in food production from these sources. There is little marginal land remaining for development in the Soviet Union, China, Asia or Europe and extension of farmlands in the more arid regions of the Middle East and North Africa would require new sources of fresh water for irrigation that are not available at present and will not be within the immediate future. It is possible that the United States might increase its area under cultivation from 300 to 350 million acres.⁴

In fact, it is likely that existing agricultural land will be reduced as demands for urban and industrial development with all that that implies in terms of roads, airports, railways, etc., are met. Between 1882 and 1952 the total land area of the world occupied by permanent buildings has increased from 0.87 billion to 1.6 billion hectares.⁵ This will be much higher if, by the year 2000, 81 per cent of the population of the developed countries and 43 per cent of the population of developing countries will be living in urban areas (Table 9).

TABLE 9.—CHANGES IN LAND UTILIZATION 1882-1952

(In billion hectares,

	1882		1952		Change	
	Percentage		Percentage		1888-1952	Percentage
Forest	5.2	45.4	3.3	29.6	-1.9	-36.8
Desert and wasteland	1.1	9.4	2.6	23.3	+1.5	+140.6
Built-on land	0.87	7.7	1.6	14.6	+0.73	+85.8
Pastures	1.5	13.4	2.2	19.5	+0.7	+41.9
Tilled land	.86	7.5	1.1	9.2	+0.24	+24.5
Total	9.53	83.5	10.8	96.2	+1.27	+12.9
Area not especially utilized	1.81	16.5	.27	3.8	+1.54	+79.9
Total	11.34	100.0	11.07	100.0	-.27	-2.4

Source: R. R. Doane, 1957. World Balance Sheet (Harper, New York). Reproduced from G. Borgstrom, Too Many.

Footnotes at end of article.

TABLE 10.—QUALITY CLASSIFICATION OF TILLED LAND

	1982 percentage	1952 percentage
Good	85.0	41.2
Half of original humus lost	9.9	38.5
Marginal soils	5.1	20.3

Source: R. R. Doane, loc. cit. (reproduced from G. Borgstrom, Too Many).

Beyond a certain point, which varies with climate and soil type, the intensification of farming causes soil deterioration and eventually erosion. This is already a problem in many of the developed countries, where very intensive farming systems have been imposed. The extension of monocultural arable farming, the heavy use of artificial fertilisers, the use of heavy machinery and, in other areas, overstocking with farm animals, all contribute to deterioration in soil structures, leading to a loss in the efficiency of drainage systems and in the effectiveness with which soluble fertilisers can be used. In this situation irrigation can lead to problems of waterlogging and/or salinity, while the overconsumption of groundwater for irrigation purposes can lead to a lowering of water tables that may compromise the future of farming. In large parts of Texas, for example, the present long drought is exacerbated by low water tables and it is possible that farming in Texas may have to be abandoned altogether.

The deterioration of soil structure has been observed in Britain, where stable soils and a temperate climate provide near-ideal farming conditions. In more severe climates and on poorer soils erosion is likely to appear more quickly and once it begins it could become an accelerating process. As the poorer lands fall the pressure on the better lands will increase, so tending to encourage still further intensification which will damage soils more rapidly than might be anticipated (see Table 10).

Erosion of farmlands in some areas is associated with the spread of deserts. In 1982 the world had a total 1.1 billion hectares of desert and wasteland. In 1952 the area had increased to 2.6 billion hectares² (see Table 9).

Given that demand for land must increase with population growth, and that populations are increasing exponentially, and assuming that the *per capita* requirement of land is 0.4 hectares for agricultural purposes and 0.08 hectares for non-agricultural purposes (a low estimate), Meadows³ has shown that by the year 2000 the land available is likely to have decreased by 250 million hectares, while the demand will have increased by about 2.4 billion hectares, and that somewhere between 1980 and 1990 the demand for land will exceed the supply. Furthermore, if yields per acre were to double, the effect would be to add no more than 30 years to the world's food supply. Similarly a quadrupling of yield, which no serious person would consider possible, would add only 60 years. The net demand for food, then, will double every 30 years and it can be satisfied only by doubling yield every 30 years.

Britain has one of the most intensive farming systems in the world. In the 25 years since the end of World War II very large sums of money have been invested in technological developments aimed at increasing output and reducing the requirement for labour. Nevertheless, when the effect of inflation on farm prices is taken into account, the productivity of British agriculture has increased by only 35 per cent and there is good reason to suppose that in most major products yields have now levelled off and in some they are declining. Short of major tech-

nological breakthroughs in plant genetics and, possibly, the introduction of entirely new concepts in farming, none of which is in sight at present, it is extremely unlikely that agricultural production in Britain can achieve further significant increases. It is not possible for agriculture in developing countries to receive the heavy investments that British agriculture has received and so it is unlikely that increases in production can be achieved to match those in Britain. Even if they were, they would be insufficient, even to sustain the present inadequate dietary levels. Although the so-called "Green Revolution" has produced important improvements locally, overall the world food situation shows no sign of improving, and there seems little chance of the FAO's targets for 1985 being met.

In past years local emergencies have been alleviated by the provision of food, principally grains, from world stocks, which have been held mainly in North America. These stocks have been allowed to run down and so even this "cushion" is lost.

TABLE 11. World average rates of increase for the period 1951-1966 for selected aspects of human activity related to food production

	[In percent] ¹
Food	34
Tractors	63
Phosphates	75
Nitrates	146
Pesticides	300

Source: Digested from United Nations, *Statistical Yearbook*, 1967 (reproduced from SCEP).

¹ Rates in constant dollars.

TABLE 12. Pesticides needed to increase food production on acreage now under cultivation in Asia (except mainland China and Japan), Africa, and Latin America by the percentages indicated

Percentage of increase in agricultural production:	Tonnage needed (metric tons)
—	120,000
10	150,000
20	195,000
30	240,000
40	285,000
50	342,000
60	402,000
70	475,000
80	558,000
90	640,000
100	720,000

Source: President's Science Advisory Committee (PSAC), 1967 (reproduced from SCEP).

There are definite biological reasons for the limits on food production. Plants depend on a complex mixture of inputs, many of which are beyond man's control. Even of the principle requirements—sunlight, water and nutrients—it is only nutrient that man has succeeded in manufacturing and supplying to his crops. Fertiliser use is subject to diminishing returns beyond certain levels of application and these may be much lower in the field than controlled experiment under near-laboratory conditions would suggest. Thus an 11 per cent increase in the agricultural production in the United States between 1949 and 1968 was achieved with a 648 per cent increase in the use of nitrogen fertiliser while Britain's 35 per cent increase required an 800 per cent increase in nitrogen fertiliser consumption. The consumption of pesticides to control the effects of the ecological imbalances created by the farming system has increased also. Between 1950 and 1967 US pesticide consumption increased by 267 per cent and achieved a 5 per cent increase in total crop yields.⁴

The use of agrochemicals on a large scale

makes a serious contribution to the pollution of the global environment. They are biologically potent, which is why they are used, and when introduced at random into the environment they interfere with living processes. Many pesticides affect the central nervous system of man, they may interfere with hormone secretions and some are known to be carcinogenic or teratogenic. Under certain circumstances some fertilisers can be harmful to health and by forming random associations with amines present in the environment, nitrites can become nitrosamines, which are carcinogenic. There is no way of knowing the extent to which the environmental carcinogen and mutagen loads have been increased because it is impossible to monitor all the possible interactions between pollutant and pollutant and between pollutants and substances present naturally. Pesticides that are persistent accumulate along food chains, so depressing predator populations and, in the long run, tending to encourage increases, rather than decreases, in pest populations. Organochlorine insecticides are particularly harmful to fish. Excess fertilisers enter water systems where they contribute to eutrophication problems. There must be an upper limit to the tolerance of the ecosphere to pollution from agriculture.

The effectiveness of pesticides is further reduced because insects, weeds and micro-organisms acquire resistance to them. Such resistance is based on hereditary characteristics in certain individuals within populations. It is transmitted genetically and so repeated application leads to the build-up of a resistant pest population by a process similar in all ways to natural selection. Throughout the world there are now some 250 species of insect pest that are immune to most insecticides.⁵

In common with most organic chemicals, pesticides are derived from petroleum and their continued production is related to the availability of petroleum or of an alternative source of raw materials, although any alternative is likely to be more expensive. All agrochemicals consume power and water in their production and the availability of cheap sources of power and plentiful supplies of water is likely to limit any increase in production.

The intensification of agriculture in many areas of the third world would require much improved systems of transport to convey fertilisers, pesticides, machinery and seeds in and food out. It is doubtful whether the capital is available to develop such transport systems or the fuel to power them.

It is unrealistic to suppose that there will be increases in agricultural production adequate to meet forecast demands for food, and the notion that technological inputs can be made available that would guarantee a doubling of production by 1980 and a further doubling by 2100 is no more than fantasy. Such a thesis can be advanced only by "experts" who fail to take into account basic ecological, physical and biological principles, or who are not in possession of all the relevant information.

The intensification of agriculture cannot prevent famines within the next 15 to 20 years, probably affecting parts of Asia, Africa, the Near East and Latin America. Indeed, by causing further disruption to terrestrial and marine ecosystems it must reduce the capacity of the planet to support life.

Attempts to increase the world's protein availability from fisheries show no sign of solving the problem. The seas are experiencing serious pollution which may be undermining the phytoplankton that form the base of the marine biotic pyramid, and they may be overfished. In 1969, for the first time in a quarter of a century, total fisheries production did not increase, owing to poor catches, and this in spite of heavy capital investment by the developed countries. Fish-

Footnotes at end of article.

ery vessels are operating in deeper and more remote waters and owing to the high levels of investment in ships and processing plant the developed countries, which are also the major fishing nations, are irrevocably committed to increasing yields by a large factor within a very short space of time. In their efforts to do so there is little reason to suppose that they will not so deplete fish stocks that within a decade or so the contribution of fisheries to world food supplies will reduce rather than increase. If there is a temporary increase, little of this will benefit the developing countries which by and large cannot afford to participate in such a heavily capitalised operation. At present less than 20 per cent of the world's total catch of sea and fresh water fish is consumed within the third world.

APPENDIX D: NON-RENEWABLE RESOURCES

Introduction

For the purposes of this discussion, non-renewable resources are divided into two types: metals and fuels.

Metals

The 16 major metals we are concerned with are:

Silver (Ag)
Aluminum (bauxite) (Al)
Gold (Au)
Cobalt (Co)
Chromium (Cr)
Copper (Cu)
Iron (Fe)
Mercury (Hg)
Manganese (Mn)
Molybdenum (Mo)
Nickel (Ni)
Lead (Pb)
Platinum (Pt)
Tin (Sn)
Tungsten (W)
Zinc (Zn)

As can be seen from the chart on p. 7, at present rates of consumption all known reserves of these metals will be exhausted within 100 years, with the exception of six (aluminum, cobalt, chromium, iron, magnesium and nickel). However, if these rates of consumption continue to increase exponentially at the rate they have done since 1960, then all known reserves will be exhausted within 50 years with the exception of only two (chromium and iron)—and they will last for only another 40 years!

Of course this is by no means the whole picture: there will be new discoveries and improvements in mining technology, and we can turn to recycling, synthetics, and substitutes. It should be obvious, however, that recycling, although a necessary and valuable expedient in a stable economy, cannot supply a rising demand (it is not a source of metals, merely a means of conserving them); while synthetics and substitutes cannot be imagined into production, but must be made from the raw materials available to us, those most suitable being themselves in short supply. Petroleum, for example, from which many valuable synthetic polymers are derived, will run out within the lifetime of those born today and will probably be increasingly scarce—and correspondingly expensive—from about the year 2000. Improvements in mining technology will be necessary in any case if we are to make use of the lower grades of ore that will be the only ones available to us as reserves are depleted. However, exponential increases in consumption will inevitably lead to a situation in which grades decline much faster than technology is improved and costs will therefore soar. Similarly, as William W. Behrens¹ has shown, the dynamic of exponential growth will considerably reduce the lifetime of new discoveries. For example, even reserves of iron (which has a relatively long lifetime) are doubled, they will stave

off exhaustion for only another 20 years. Thus, given present rates of usage and the projected growth of those rates, most raw materials will be prohibitively expensive within about 100 years. Political difficulties will arise well before then—as indeed they are beginning to do in the case of oil.

As Preston Cloud² has pointed out, the extra iron, lead, zinc and so on, necessary to raise the level of consumption of the 3,400 million non-Americans to that of their fellows in the United States is from 100 to 200 times present annual production—and although this would be exceptionally difficult to achieve, it is paltry compared with the problem of providing an equivalent standard of consumption for the doubling of world population projected for 40 years' time. And yet we in the industrial countries expect our consumption of metals to go on rising and at the same time lure the non-industrial countries with promises that they too can have "wealth" like ours!

Only those acrobats of the imagination who argue that, come what may, technology will find a way, believe that problems such as these can be solved in any way save a diminution of consumption. In particular, they are confident that the abundance of cheap energy they assure themselves will be available in the near future will enable us to extract the metals present in ordinary rock and in seawater. Yet energy is already very cheap (comprising only 4.6 per cent of the world's total industrial production by value),³ while the real limit on such enterprises is likely to be not energy but the fragility of ecosystems. For example, the ratio of unusable waste to useful metal in granite is at least 2,000:1, so that the mining of economic quantities of metals from rock or seawater will very quickly burden us with impossible quantities of waste.

Energy

The bulk of our energy requirements today is met by fossil fuels, which like metals are in short supply. At present rates of consumption, known reserves of natural gas will be exhausted within 35 years, and of petroleum within 70 years. If these rates continue to grow exponentially, as they have done since 1960, then natural gas will be exhausted within 14 years, and petroleum within 20. Coal is likely to last much longer (about 300 years), but the fossil fuels in general are required for so many purposes other than fuel—pesticides, fertilisers, plastics, and so on—that it would be foolish to come to depend on it for energy.⁴

Recognition of this has led to the present emphasis on nuclear fission as a source of energy. However, the only naturally occurring, spontaneously fissionable source of energy is uranium 235, and this is likely to be in extremely short supply by the end of the century.⁵ Accordingly, the future of nuclear power rests with the development of complete breeding systems. Breeder reactors use excess neutrons from the fission of uranium 235 to convert nonfissionable uranium 238 and thorium 232 into fissionable plutonium 239 and uranium 233 respectively. Their successful development will mean that man's energy needs will probably be met for the next 1,000 years or so, during which time it is hoped that deuterium-deuterium fusion can be developed—which will provide us with virtually unlimited energy.

Because the successful development of breeder reactors in time to take over from fossil fuels is possible, it may be that fuel availability will not be a limiting factor on growth. This means nothing, however, since shortages of other resources and pollution by radioactive by-products and waste heat will quickly prevent the continued expansion of energy consumption. Since radioactive pollutants have been dealt with in the appendix on ecosystems, we will here consider only waste heat.

Every use of energy always produces waste heat. Power stations "solve" the problem of heat production either by using large amounts of cooling water, or to a lesser extent, air. The disadvantage of the former method is that if the heated water is returned to source it damages the aquatic ecosystem, and if it is evaporated into the atmosphere the source is considerably depleted. The disadvantage of the latter method is that because air temperatures are higher than those of water, the thermodynamic efficiency of the power station is much reduced.

Efficiency is a great problem. In the US, electricity provides 10 per cent of the power actually used by the consumer, but accounts for 26 per cent of gross energy consumption. Earl Cook⁶ has calculated that at present rates, by the year 2000 electricity will provide 25 per cent of "consumer-power" and account for between 43 and 53 per cent of gross energy consumption. At that point, half the energy produced will be in the form of useful work and half in the form of waste heat from power stations.

Even if we ignored the waste heat from power stations, that produced by the actual consumption of electricity will quickly call a halt to growth. For example, in the U.S. in 1970, heat from that source amounted to an average of 0.017 watts per square foot, and Claude Summers⁷ has calculated that if consumption continues to double at the present rate, within only 99 years, after 10 more doublings, the average will be 17 watts per square foot—compared with the average of 18 or 19 watts the U.S. receives from the sun! Clearly, well before this point energy consumption will be limited by the heat tolerance of the ecosystem.

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AN OPPORTUNITY TO LOWER THE NATIONAL DEBT BY \$69 BILLION

(Mr. PATMAN asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. PATMAN. Mr. Speaker, on Monday, January 31, the Ways and Means Committee will again consider legislation to increase the national debt ceiling. At the present time, the total national debt stands at more than \$426 billion and it is expected to rise sharply with the new budget deficits reported by the administration.

Despite the continuing deficits, there would be no need to increase the debt ceiling if the Congress were willing to make the Federal Reserve System operate in the same manner as other Government agencies. In fact, we could reduce the national debt by about \$69 billion if we required normal budgetary and accounting procedures to apply at the Federal Reserve. This could be accomplished by canceling and retiring the \$69 billion worth of bonds being held in the New York Federal Reserve Bank as part of the Federal Open Market Committee's portfolio.

These are bonds that have been purchased by the Federal Reserve—with the credit of the U.S. Government. Despite the fact that these bonds have been paid for with Government credit, the Federal Reserve continues to hold these securities and to receive interest payments from the U.S. Treasury. These interest payments are running at about \$4 billion annually and the Federal Reserve carries on its farflung operations out of this huge fund.

By using this unaudited and uncontrolled fund, the Federal Reserve avoids coming to the Congress for appropriations and is free to carry on whatever operations it pleases. No other major agency of the Federal Government is allowed to operate in such a freewheeling manner.

I have asked for the privilege of testifying before the Ways and Means Committee on this issue on Monday, January 31. I plan to urge the committee to take the steps necessary to require the retirement of these bonds and to end the interest payments to the Federal Reserve System. It is my expectation that this issue will also come under thorough review during the Joint Economic Committee hearings on the President's economic message to Congress. The hearings begin February 7. Further, it is my intention to seek an open rule when the legislation to raise the national debt ceiling reaches the floor so that the Members of the House may be able to cast a separate vote on this issue.

We can render a great public service

by seeing that these bonds are retired and subtracted from the debt. We can lower the national debt and, at the same time, correct a basic injustice.

I urge my colleagues to insist that this issue be allowed to come before the House of Representatives and be voted on. I hope that they will take every opportunity to make themselves heard on this issue in the coming days.

Mr. Speaker, in considering the cancellation of the \$69 billion worth of bonds, Members of Congress should ask three questions:

Why should the American taxpayers be compelled to pay interest on bonds that have already been paid for in full?

Why should the American taxpayers be required to pay for these bonds again?

Why should these bonds continue to be charged against the national debt when they have already been paid in full?

TRUTH IN LENDING—1971

(Mr. PATMAN asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. PATMAN. Mr. Speaker, the Board of Governors of the Federal Reserve System has submitted to the Congress its annual report on truth in lending for the year 1971 as required by the Consumer Credit Protection Act of 1968. This excellent report is appended to these remarks, and the Members are earnestly urged to examine it in detail.

Based on experience of the Federal Reserve Board and the other Federal agencies responsible for administering the act, the report concludes that compliance with the requirements of truth in lending has reached a relatively high level. In surveys conducted by the Federal Trade Commission, it was found that 86 percent of all creditors under the Commission's jurisdiction were in either complete or total compliance. Based on the experience of all agencies having responsibility under truth in lending, the infractions which do occur result from either misunderstanding or clerical error rather than any attempt to evade the requirements of the act.

Mr. Speaker, the Federal Reserve Board is to be commended for its excellent work in implementing this novel, and sometimes complicated, act. As the practice of credit term disclosure terms become more prevalent among lenders, the greater the benefit will be to consumers in making their decisions about credit and credit purchases.

A matter related to creditor compliance is the Board's continuing efforts in education. Although the number of requests for materials has diminished since the effective date of truth in lending 2½ years ago, efforts in this area continue, especially in the important area of consumer education. In addition to consumer education, the Board is coordinating with the various State and Federal enforcement agencies to maintain uniform application of the act.

Although the report indicates the impact of truth in lending has been good, the Board recognizes that complete im-

plementation of truth in lending has not yet been achieved. In certain respects the intent of Congress in this legislation was properly accomplished through amendment and interpretation of regulation Z, the truth in lending regulation. But there are other problems which may require congressional action to deal with areas uncovered through experience in administering the act as well as new problems which have arisen since the act became law. For this reason, the Board in its report has identified those areas which should be examined closely and has made specific recommendations for congressional action. The legislative recommendations are set forth in detail in the report, and are designed to clarify and strengthen the basic law so that it can assure meaningful disclosure of credit terms to all consumers. The Honorable LEONOR K. SULLIVAN, chairman of the Subcommittee on Consumer Affairs of the Committee on Banking and Currency, is aware of these proposals, and the Members can be assured that she is giving close attention to the issues raised by the report.

The report referred to follows:

TRUTH IN LENDING FOR THE YEAR 1971

This third Annual Report on Truth in Lending is submitted to Congress by the Board pursuant to section 114 of the Truth in Lending Act. Its purpose is to report on the Board's administration of its functions under the Truth in Lending Act, to assess the extent of compliance with the requirements of Truth in Lending, and to make recommendations for legislative changes.

The Board believes that compliance with the requirements of Truth in Lending by creditors has reached a relatively high level. Although the Board has not conducted any surveys relating to Truth in Lending during 1971, reports of the various enforcement agencies indicate that positive results have been achieved. The educational activities of most enforcement agencies continued, although the demand for educational material has declined since the early stages of Truth in Lending.

Complete implementation of Truth in Lending has not yet been achieved. In order to maintain Regulation Z, which implements the Truth in Lending Act, as a workable and useful tool, the Board found it necessary to amend and interpret the Regulation in several respects as new problems arose and more experience with its operation was gained. Currently, there are several problems within the Act and the Regulation which have not yet been resolved, and are presented here for the attention or information of Congress.

These and other areas are discussed in greater detail in the remainder of this report.

ADMINISTRATIVE FUNCTIONS

Amendments and Interpretations of Regulation Z

During 1971, the Board issued nine amendments and two interpretations of Regulation Z. The most far-reaching amendment added a new section to the Regulation, section 226.13,¹ which was necessitated by the credit card amendments to the Truth in Lending Act in Public Law 91-508. The new section, which became effective on January 25, 1971, set forth implementing regulations to restrict the issuance of unsolicited credit cards and to limit to a maximum of \$50 the cardholder's liability for unauthorized use of his card resulting from loss, theft or other occurrence.

As a consequence of adding that new sec-

tion to Regulation Z, it was also necessary to amend sections 226.1 and 226.12. Section 226.1, which states the Regulation's authority, scope, and purpose, was amended to embody the credit card concepts.² Section 226.12 deals with exemption from the disclosure and rescission requirements of the Regulation for States that have laws which impose requirements substantially similar to those imposed by the Federal law, and that also have adequate provision for enforcement. That section was amended to specify the procedures for those States seeking exemption from the credit card requirements in section 226.13.³ The amendment provides that exemption from the credit card requirements is separate and distinct from any exemption from the disclosure and rescission requirements. Exemption from the credit card requirements is not automatic for the four States that have already received disclosure and rescission exemptions.⁴ However, those four States are not required to obtain exemption from the credit card provisions in order to maintain their present exemption. The specific requirements for obtaining an exemption from the Federal credit card requirements are spelled out in a new Supplement IV to Regulation Z.⁵ Thus far, no States have applied for exemption from the Federal credit card provisions.

An amendment was issued adding section 226.6(1) which provides that any variance in credit terms in disclosures or advertisements that occurs as a result of the extra day in a leap year may be disregarded.⁶

An amendment was issued to section 226.7 (e) to provide that creditors must give advance notice of a change in terms of an open end credit account only to those persons whose accounts are active at the time of the change.⁷ Inactive account holders must be notified of the change when their accounts become active. Furthermore, a reduction in the minimum periodic payment, periodic rate or rates, or in any minimum, fixed, check service, transaction, activity or similar charge applicable to the account is not a change in terms requiring prior disclosure. The amendment reduced the period of advance notice from 30 to 15 days to allow creditors to provide the notice with any billing statement issued at least 15 days prior to the beginning of the billing cycle in which the change takes place.

Three amendments were issued relating to the customer's right to rescind certain credit contracts as provided in section 226.9. One amendment adds Columbus Day to the list of holidays excluded for the purpose of calculating the time in which a customer may exercise his right to rescind.⁸ The second amendment permits creditors to use certain specified substitute wording in the notice of right of rescission to make the notice more meaningful to the customer when the transaction is secured by a parcel of land or a vacant lot which the customer expects to use as his principal residence.⁹ The third amendment exempts agricultural transactions from the requirement prohibiting performance by creditors (e.g., the disbursement of loan proceeds) during the rescission period.¹⁰

An amendment added section 226.10(e) to the advertising requirements of the Regulation which provides a specific means for advertising homes under the FHA Section 235 financing program.¹¹ Special procedures were found to be necessary to provide meaningful advertisements for this program, because it calls for a variation in monthly payments and annual percentage rates applicable to different customers, depending upon their individual income and family composition.

Proposed amendments to section 226.7, which have been issued for public comment, would require disclosure of an annual percentage rate on periodic billing statements in open end credit plans when no finance charge is imposed.¹² The background for this pro-

posal is described more fully on page 11 relating to litigation.

Two formal Board interpretations of Regulation Z were issued during the year. One interpretation, section 226.705, relates to a change in the method of determining the balance on which a customer's finance charge is computed. No advance notice to the customer is required where a creditor changes his method of determining the balance on which finance charges are computed from one in which payments and credits made during the billing cycle are not deducted in determining the balance, to one in which payments and credits are deducted.¹³ Such a change in methods generally results in a reduction of the finance charges to those customers who do not pay their accounts in full. The second interpretation, section 226.407, provides that an annual fee charged by a credit card issuer for membership in his credit plan and for the issuance of a credit card is not a finance charge under the Regulation.¹⁴ Such charges are not finance charges, since they are imposed for membership in the credit plan and for issuance of the credit card. They are not related to any specific extensions of credit, and are imposed whether or not the cardholder uses his card.

State exemptions

During 1971, only one application—from the State of Kansas—was received for exemption from the disclosure and rescission provisions of the Truth in Lending Act. A preliminary review of the application revealed that additional information was required from the State before the application could be formally accepted by the Board and published for public comment. The State officials have been notified of the need for additional information.

Members of the Board's Truth in Lending staff have visited the officials responsible for enforcing Truth in Lending at their offices in the exempt States of Connecticut, Massachusetts and Maine. During the year, officials from Oklahoma met with the Board's staff. The basic purpose of the visits was to develop closer liaison with the officials of the exempt States and to discuss problems of mutual concern regarding Truth in Lending.

The Board believes that the exempt States are conscientiously implementing their own Truth in Lending laws in a manner consistent with the purposes of the Federal Truth in Lending Act. The Board intends to maintain close liaison with the Truth in Lending enforcement personnel in the exempt States.

Education

Educational efforts directed toward both consumers and creditors by the Board continued during 1971, but at a significantly reduced pace. There is still some demand for the Board's creditor materials—the pamphlet, *What You Ought to Know About Truth in Lending*, and the filmstrip directed to creditors—but the demand has diminished during the year. The consumer-oriented educational materials—the leaflet, *What Truth in Lending Means to You*, and the filmstrip directed to consumers—are in greater demand than the creditor-oriented educational materials, but the demand has waned since the initial issuance of these materials in 1970.

Currently, the Board is in the process of preparing for free distribution a Spanish-language version of the consumer leaflet, *What Truth in Lending Means to You*. This is an attempt to help Spanish speaking citizens benefit from Truth in Lending. Spanish was chosen since it constitutes, by far, the language of the largest segment of non-English speaking people in the nation.

While each Federal Reserve Bank has been active in Truth in Lending education, the Federal Reserve Bank of Boston has done a particularly noteworthy job in providing a consumer educational program. For example,

Footnotes at end of article.

during the past year, a representative of the Bank has participated in 40 interview-type radio shows, 4 television public service programs, and has made 13 appearances before senior high school classes, 10 lectures to college students, 11 appearances before county extension service groups, 6 appearances before State legal rights associations, and 31 appearances before other miscellaneous groups. Undoubtedly, these 115 appearances have made very worthwhile contributions to consumer education in the New England area.

A new publication containing all amendments and interpretations of Regulation Z issued since September 12, 1969, has recently been published by the Board. The publication supplements the pamphlet, *What You Ought to Know About Truth in Lending*, and brings together for convenient reference all amendments and interpretations of Regulation Z issued since the latest printing of the pamphlet.

In an effort to maintain uniform application of Truth in Lending's requirements among the various enforcement agencies (including the exempt States), the Board has continued to provide them with copies of Truth in Lending correspondence treating new or unusual situations. Thus far, 551 such letters have been provided to these agencies. These letters, as well as others on Truth in Lending matters, have also been published by a commercial legal service.

The Board's staff continues to receive numerous requests for written or oral opinions on Truth in Lending matters. Approximately 1200 letters have been received this year, of which approximately 1000 required a written response. Staff participated in seven Truth in Lending seminars during the year.

The other Federal enforcement agencies have continued with their educational programs, but the demand has diminished markedly. However, during the year, the Federal Trade Commission prepared a number of new materials relating to consumer education. Included are radio spot announcements about Truth in Lending which have been aired over 700 stations. The Commission is now evaluating the effectiveness of its educational program and planning its future educational activities.

Oklahoma has reported an energetic program in educating its citizens in Truth in Lending in conjunction with its educational activities related to the Uniform Consumer Credit Code. All exempt States report an ongoing educational program, including participation in seminars sponsored by creditor or consumer groups and responding to inquiries relating to Truth in Lending.

Advisory committee

During 1971, there were no formal meetings of the Advisory Committee. However, members of the Committee were asked to provide individual comments on certain matters relating to Truth in Lending, e.g., the proposed Fair Credit Billing Act. Unless there are amendments to the Truth in Lending Act mandating substantial changes in Regulation Z, the Board does not foresee the need for frequent meetings of the Committee. With the concurrence of the members of the Advisory Committee, the Board approved a change in the Rules of Organization and Procedure of the Committee allowing for continuing terms of the Committee members. A list of the members serving on the Committee is included in this Report as Appendix A.

Litigation

The Board is aware of the existence of 71 civil actions which have been brought under section 130 of the Act for damages for alleged violation of the Act, and it is likely that additional suits have been instituted. In 49 of these cases, class action status is sought on behalf of the named plaintiffs and all others similarly situated under Rule 23 of the Federal Rules of Civil Procedure.

At least four Courts have refused to allow Truth in Lending suits to proceed as class actions.¹² However, several other Courts have viewed class actions as applicable in such suits.¹³ The issue of the appropriateness of class actions for Truth in Lending violations is presently under specific consideration by the United States District Court for the Southern District of New York.¹⁴

Two actions were brought against the Board by home improvement contractors alleging that the Board exceeded its authority in sections 226.2(z) and 226.9(a) of Regulation Z by providing that the right of rescission applied to consumer credit contracts secured by mechanics or materialmen's liens on the customer's home, even though no mortgage or deed of trust was executed by the customer.¹⁵ Plaintiffs asked for declaratory judgments of invalidity and injunctions against enforcement of the Regulation in this regard. On January 6, 1971, summary judgment, without opinion was granted in favor of the Board in one of the actions,¹⁶ but on September 21, 1971, the Court in the second action held that section 226.9(a) was null and void "in so far as it relates to liens which may come into existence by operation of law after midnight of the third business day following the date of consummation of the credit transactions."¹⁷ An appeal has been filed in one case by the home improvement contractors. In the other case, the Department of Justice has authorized the filing of a notice of appeal.

The Department of Justice, on the Board's behalf, filed briefs *amicus curiae* in two cases.¹⁸ A brief in *Garland v. Mobil Oil Corp.* was filed on behalf of the Federal Trade Commission as well as the Board pursuant to judicial request for a statement of Board and Commission views on whether the Act and Regulation applied to Mobil's credit card plan during a period when no finance charges were assessed, although authorized by the underlying credit documents. The Government's brief concluded that the plan was not subject to the Truth in Lending disclosure requirements during this period. The Court has not yet ruled on the question. In *Mourning v. Family Publications Service, Inc.*, the issue was the validity of the "more-than-four-installment" rule in section 226.2(k) of Regulation Z. Under the rule, transactions are considered "consumer credit" subject to the Act when, by agreement, they involve more than four installments, although the creditor has not specifically identified any finance charges. The Court held that the rule exceeded the Board's authority and that the rule created a conclusive presumption in violation of constitutional principles. A petition for *certiorari* has been filed with the Supreme Court for review of the decision, and the Board expects the appeal to be supported by briefs *amicus curiae*.

During 1971, several additional important decisions were rendered on Truth in Lending matters by the Courts. In *Ratner v. Chemical Bank New York Trust Company*,¹⁹ the Court held the bank in violation of the Act for failure to disclose the nominal annual percentage rate on plaintiff's open end credit billing statement which showed an outstanding balance but no finance charge yet incurred. Following that decision, the Board, on August 6, 1971, issued for public comment proposed amendments to Regulation Z requiring this disclosure. Final amendments have not yet been adopted by the Board. The Court also ruled that under section 130(a) of the Act a finance charge need not be imposed at the time of the omitted disclosure as a condition to establishing liability. In addition, it held that section 130(c) absolving a creditor from liability who shows that his "violation was not intentional and resulted from a bona fide error notwithstanding the maintenance of procedures reasonably

adapted to avoid any such error" applies to clerical errors as opposed to errors of law.²⁰

In *Douglas v. Beneficial Finance Co. of Anchorage*,²¹ the Court upheld the Board's definition of "security interest" in section 226.2(z) of Regulation Z to include confessions of judgment which allow the creditor to record a lien on the property of the obligor without any opportunity for the customer to enter a defense against such action prior to entry of the judgment. That definition was also supported in *Garza v. Chicago Health Clubs, Inc.*²²

The Court in *Sapenter v. Dreyco, Inc.*²³ held that a mortgage on an obligor's home was not subject to the Act when executed in connection with an extension of credit for business purposes.

It was held in *Jordan v. Montgomery Ward & Co., Inc.*²⁴ that section 130 of the Act did not create a private right of action for violation of the Chapter 3 advertising provisions.

In *Bostwick v. Cohen*,²⁵ the Court considered the issue of whether a customer's election to rescind a transaction under section 125 of the Act precluded recovery under the civil liability provisions of section 130. It concluded that the civil liability provisions were remedial rather than punitive, and that by electing to rescind the contract, the customer had removed himself from the class of persons which section 130 was designed to protect.

COMPLIANCE

The enforcement of the Truth in Lending Act is spread among nine Federal agencies. For the most part, Federal agencies with general supervisory authority over a particular group of creditors were also given Truth in Lending enforcement responsibility over those creditors. Enforcement for all remaining creditors, except in those States which have an exemption from the Act, is the responsibility of the Federal Trade Commission. Consequently, the Commission has the bulk of the enforcement task.

As in the past, information received from the Federal agencies having prior supervisory authority over their creditors indicates no significant problems in the enforcement of Regulation Z. Generally, these agencies point out that the level of compliance is high, and that the errors that are found result from misunderstanding or clerical error, rather than any attempt to evade the requirements of the Act. For the most part, compliance is determined by these agencies during the regular periodic examinations of the creditors under their jurisdiction.

The Federal Trade Commission has conducted two surveys in an attempt to determine the extent of compliance by creditors under its jurisdiction. The results of these two surveys were reported by the Commission in a release titled *Federal Trade Commission Report on Surveys of Creditor Compliance with The Truth in Lending Act* dated April, 1971. A summary of the results shows that of the five classes of creditors sampled, New and Used Automobile Dealers, as a class, ranked highest in overall compliance. (New Automobile Dealers were virtually flawless in their compliance. Used Automobile Dealers, however, were found to be in a state of compliance. (New Automobile Dealers were virtually flawless in their compliance. Used Automobile Dealers, however, were found to be in a state of compliance worse than any of the other classes sampled.) The classes of TV & Appliance Dealers and Furniture Stores together ranked second in overall compliance of each class. Jewelry Stores were the least complying class of creditor. Home Improvement Companies were so inconsistent in their responses that no reliable conclusions could be drawn, although the overall average of their compliance was comparable to the middle two classes.

The Report revealed that 86 percent of all creditors in the five classes surveyed were using contracts which were in either total

Footnotes at end of article.

or substantial compliance. Sixty-nine percent of all creditors in the five classes achieved the total compliance designation which means that they were disclosing all information required by the Act and Regulation and doing so in the proper format. Seventeen percent of all creditors surveyed achieved the substantial compliance designation, which refers to the disclosure of the annual percentage rate and finance charge, using those exact terms, but omitting other requirements. Fourteen percent of all creditors in the five classes were using instalment contracts which did not disclose the annual percentage rate and finance charge.

The Commission drew several conclusions from the survey results—among them:

"With all five classes of creditors combined, those with sales volumes of \$1 million to \$10 million were in the best overall compliance.

"Creditors extending credit in less than 50% of their sales were in a better state of compliance than those who extend credit in 50% or more of their sales."

Reports of substantial compliance have also been received from the four exempt States. Of the States reporting statistical evidence of the degree of compliance, Maine reported 62 percent of creditors under its jurisdiction examined in 1971 were in compliance, 14 percent were in substantial compliance, 19 percent were in partial compliance and 5 percent were in non-compliance. Connecticut reported 81 percent of the creditors examined were found to be satisfying their requirements.

Based upon the reports of all enforcement agencies, it is the Board's belief that substantial compliance with Truth in Lending is being achieved.

ISSUES AND RECOMMENDATIONS

There are a number of problem areas within the Truth in Lending Act and Regulation Z which the Board believes should be brought to the attention of Congress. Some of these represent issues which the Board is currently studying to determine possible solutions within the regulatory authority now provided. These are discussed under the heading "Issues". Others take the form of formal recommendations for legislation and are discussed under the heading "Recommendations".

Several of the enforcement agencies have brought to the Board's attention certain areas related to the Regulation which they believe should be changed. These suggestions are being studied further and, where necessary, appropriate changes will be made.

Issues

Discounts for Prompt Payment

The problems involved with Truth in Lending coverage of discounts for prompt payment continue to exist. Also, questions have arisen with respect to plans involving discounts for cash which have been gaining in popularity recently. These plans often involve "cash cards" which when presented entitle the cardholder to a discount for paying cash. The question arises whether this discount becomes a finance charge to those who do not pay in cash, but, instead, charge their purchases. Staff is currently studying these problems, but no formal action beyond that reported in the previous annual report has been taken.

Disclosure in Foreign Languages

In order to provide uniformity in disclosure of credit terms, Regulation Z prescribes certain English terminology to be used. However, the benefit which such disclosures may bring to those consumers who do not read or understand English is highly questionable. Although disclosures must be given prior to the consummation of a credit transaction and, theoretically, a consumer can obtain an explanation or a translation of the disclosures before committing him-

self, such translations or explanations are probably rarely obtained in actual practice. The objective of providing meaningful disclosures to all consumers, including non-English speaking, is certainly a desirable one. A number of possible solutions to this problem have been proposed, but none appear feasible. It may be that the only solution is increased education of consumers, and the Board believes that the Spanish translation of the consumer leaflet, *What Truth in Lending Means to You*, is a step in that direction. However, the Board is still concerned about the problem and will continue to explore potential solutions.

Advertising of Specific Credit Terms

The inclusion of specific credit terms in credit advertising appears to continue at a level lower than desirable to enable consumers to effectively shop for the best credit terms available. However, there are informal indications that the use of more specific advertising is increasing. While creditor complaints against the advertising restrictions have diminished, the Board anticipates reviewing this area to determine whether changes can be made to encourage greater inclusion of specific credit terms.

Recommendations

Class Action Exposure and Civil Liability

Creditors have been expressing increased concern over their possible exposure to class action suits and the potential ruinous liability which may be attached to such suits. While the question of class action liability in the *Ratner* case, as discussed on page 11, has not yet been decided, the reported \$13 million potential liability has led many creditors to believe that similar suits filed against them could seriously threaten the solvency or future existence of their organizations. Furthermore, the Act's civil liability section does not necessarily preclude liability when a creditor has acted in good faith in conformity with Regulation Z. The Board recommends that the Act be amended to provide for a "good faith" provision, such as contained in the Securities and Exchange Act of 1934, which would apply to both the Board's Regulation Z and formal interpretations of it.²⁹ It also may be desirable to set a maximum liability, or otherwise restrict the scope of potential class action liability, should it be finally determined that class actions are allowable in Truth in Lending suits.

Section 130 of the Act provides that a creditor is liable for a minimum of \$100 for failure to make proper disclosure "in connection with any consumer credit transaction." There is some uncertainty as to the meaning of "transaction" when applying section 130 to a possible error on a periodic statement used in connection with an open end account. It might be contended that each separate purchase for which a credit card is used constitutes a "transaction" for purposes of section 130, or that each periodic statement is a transaction. More likely the opening and use of the account is a single transaction. The Board believes that Congress should clarify the very important meaning of "transaction" in section 130.

RIGHT OF RECESSION

Section 125 of the Act, implemented by section 226.9 of Regulation Z, provides that in some consumer credit transactions in which a security interest in the customer's residence is involved, the customer has three business days in which to rescind the transaction. The creditor must notify the customer of his right of rescission and provide a form which may be used in exercising that right. The law does not specify any limitation on the period in which the right continues in force where the creditor has failed to notify the customer of his right. Also, even though

the required notice is given, there is a question as to whether the rescission period may continue where the other required disclosures of credit terms are given but are incorrect. As a result, the titles to many residential real estate properties may become clouded by the uncertainty regarding these rights of rescission. The Board recommends that Congress amend the Act to provide a limitation on the time the right of rescission may run.

As previously discussed, the Court in *N. C. Freed Company, Inc., v. Board of Governors*,³⁰ held section 226.9(a) of Regulation Z invalid "in so far as it relates to liens which may come into existence by operation of law after midnight of the third business day following the date of consummation of the credit transaction." That section, which implements section 125 of the Act, grants the customer a three-day right of rescission in transactions involving a security interest in his principal residence. In effect, the Court ruled that the section was inapplicable to transactions in which no mortgage or deed of trust is signed by the customer, but where the transaction is nevertheless secured by lien rights in the customer's home. The Department of Justice has authorized the filing of a notice of appeal in the case.

In a related case, *Gardner and North Roofing and Siding Corp. v. Board of Governors*,³¹ which attacked the Board's Regulation on identical grounds, the Court ruled in the Board's favor and granted the Government's motion for summary judgment. The case has been appealed.

The right of rescission was designed to allow homeowners a "cooling-off" period before entering into credit transactions involving security interests in their homes, principally as a result of home improvement contracts, and to reduce the likelihood of abuses of homeowners by unscrupulous contractors. The Board believes that successful accomplishment of these goals necessitates the coverage of all transactions in which a customer's home may be lost through foreclosure, whether by mortgage, deed of trust, or other lien rights. It therefore recommends that Congress specifically amend the Act to remove any uncertainty about the coverage of these transactions under section 125.

More-than-Four-Instalment Rule

In *Mourning v. Family Publications Service, Inc.*,³² the Court declared the Board's more-than-four-instalment rule in section 226.2(k) of Regulation Z invalid. Acting under the statutory directive to issue regulations to effectuate the purposes of the Act and to prevent circumvention or evasion thereof,³³ the Board in Regulation Z defined "consumer credit," to which Truth in Lending applies, to include credit which, pursuant to an agreement, "is or may be payable in more than four instalments."³⁴ By this provision, vendors who may have considered concealing finance charges in the price of goods to evade the Act's requirements, as well as the so-called "no-charge-for-credit" sellers already operating in low income markets, were placed on notice that the Board considered them subject to the Act's requirements. By so doing, the Board insured that they would make certain important disclosures required by Truth in Lending, even when no finance charge or annual percentage rate was disclosed. For example, the Act requires disclosure of the total amount of the consumer's obligation.

The Board's rule was based on the economic fact that instalment contracts of more than four instalments typically include some component to compensate the creditor for the cost involved in allowing deferred payment, even though that cost may not be separately identified as a finance charge. The Board believes the rule is both within the scope of its authority, and necessary to prevent evasion of the Act. However, the appellate Court held that the Board exceeded its

Footnotes at end of article.

authority, and that the rule is void on the grounds that it creates a conclusive presumption in violation of requirements of the Fifth Amendment.

Should the Court's decision stand, many creditors would not only escape the requirement of Truth in Lending disclosures prior to consummation of their contracts, but would also be free of the Act's prohibitions against "bait" credit advertising.³⁵ They would also be able to advertise "no down payment" or the amount of the payments without further information, which is prohibited for creditors subject to the Act.³⁶

In addition, home improvement contractors might avoid giving customers the right of rescission, even where they obtained a second mortgage on the customer's home simply by "burying" the finance charges in the price of the contract.

In short, the Board is convinced that invalidation of the "more-than-four-installment" rule would seriously impair the effectiveness of the legislation. The Board believes that Congress should amend the Act to remove any possible doubt that it does include transactions payable in more than four installments.

Agricultural Credit

Ever since passage of the Truth in Lending Act, there has been considerable controversy with respect to whether credit for agricultural purposes should be included within the scope of the Act. Many creditors have argued that the very nature of many agricultural credit transactions (which frequently involve advances and payments for which both time and amount are unknown) makes them unsuited for meaningful disclosure. Furthermore, it has frequently been argued that since agriculture is a business, it should be exempt from coverage of the Act, just as other business credit is exempt.

Knowing the general view of creditors that credit for agricultural purposes should be exempt, the Board's staff contacted a number of agricultural associations in an effort to determine the views of the persons who actually use agricultural credit. The responses revealed that there is no uniformity of view with regard to Truth in Lending coverage of agricultural credit. While the majority of those associations that responded indicated that agriculture should be exempt, two of the three largest associations representing general agricultural interests supported continued coverage. In addition, an informal poll of a number of agricultural economists indicated a 3 to 1 response in favor of continuing coverage. An informal poll of directors of farmer cooperatives, which has been reported to the Board, showed that 55 percent of the respondents indicated that Truth in Lending disclosures assisted them in determining credit costs, while 42 percent indicated that the disclosures were of no assistance. Furthermore, 45 percent indicated that Truth in Lending made little change in their credit buying habits.

All of this suggests that a strong case cannot be made for either complete coverage or complete exemption of agricultural credit under Truth in Lending. However, it tends to reinforce the reasons for the Board repeating its previous recommendation that credit primarily for agricultural purposes in excess of an appropriate amount should be exempt from the provisions of the Act, irrespective of any security interest in real property. This recommendation, if adopted by Congress, would have the effect of removing from coverage large extensions of credit, where borrowers are more sophisticated and less in need of the disclosures, while still providing the benefits of disclosure to the smaller borrowers, who presumably are more likely to benefit from such disclosures. Such an amendment would benefit creditors in reducing the number of disclosures to be made.

Administrative Enforcement

The Farm Credit Administration is not specified in section 108 of the Act as one of the Federal authorities responsible for administrative enforcement, and therefore the Federal Land Banks, Federal Land Bank Associations, and Production Credit Associations are subject to administrative enforcement of the Federal Trade Commission. The Board suggests that Congress amend section 108 of the Act so as to delegate to the Farm Credit Administration the administrative enforcement responsibility with respect to those creditors which are chartered under Acts which that agency administers. The Farm Credit Administration and the Federal Trade Commission concur in this suggestion.

FOOTNOTES

¹ 36 Fed. Reg. 1040, 1/22/71.

² Id.

³ Id.

⁴ Connecticut, Maine, Massachusetts and Oklahoma.

⁵ 36 Fed. Reg. 1040, 1/22/71.

⁶ 36 Fed. Reg. 22809, 12/1/71.

⁷ 36 Fed. Reg. 4113, 3/4/71.

⁸ 36 Fed. Reg. 19671, 10/9/71.

⁹ 36 Fed. Reg. 4113, 3/4/71.

¹⁰ Id.

¹¹ Id.

¹² 36 Fed. Reg. 15130, 8/13/71.

¹³ 36 Fed. Reg. 16646, 8/25/71.

¹⁴ 36 Fed. Reg. 16050, 8/19/71.

¹⁵ *Buford v. American Finance Company*, U.S.D.C., N.D. Ga., Oct. 1, 1971, 4 CCH Consumer Credit Guide ¶99,302; *Mourning v. Family Publications Service, Inc.*, U.S.D.C., S.D. Fla., Nov. 27, 1970, 4 CCH Consumer Credit Guide ¶99,832; *Allerton 1. Century Credit Corporation*, Civil No. 70-1614, U.S.D.C., S.D. Fla., April 12, 1971; *Rogers v. Coburn Finance Corp.*, Civil No. 14843, U.S.D.C., N.D. Ga., Sept. 22, 1971.

¹⁶ *Smith v. International Magazines Services*, Civil No. 71-16-F, U.S.D.C., N.D. W. Va., Nov. 2, 1971; *Martin v. Family Publications Service*, Civil No. 5829, U.S.D.C., D. Vt., June 30, 1970; *Rademacher v. Town & Country Charge*, Civil No. 70-C-194, U.S.D.C., N.D. Ill., Oct. 9, 1970; *Douglas v. Beneficial Finance Co. of Anchorage*, U.S.D.C., D. Ak., Sept. 2, 1971, 4 CCH Consumer Credit Guide ¶99,295; *Richardson v. Time Premium Company*, Civil No. 70-1814-JLK, U.S.D.C., S.D. Fla., February 4, 1971; *Givens v. W. T. Grant Company*, Civil No. 14296, U.S.D.C., D. Conn., Sept. 22, 1971; *Katz v. Carte Blanche Corporation*, Civil No. 69-1326, U.S.D.C., W.D. Pa., Nov. 17, 1971; *Berkman v. Westinghouse Electric Corporation*, Civil No. 69-C-2056, U.S.D.C., N.D. Ill., June 25, 1970.

¹⁷ *Ratner v. Chemical Bank New York Trust Company*, 4 CCH Consumer Credit Guide ¶99,456.

¹⁸ *Gardner and North Roofing and Siding Corp. v. Board of Governors*, D. D.C., 4 CCH Consumer Credit Guide ¶99,621; *N. C. Freed Company, Inc. v. Board of Governors* U.S.D.C., W.D.N.Y., 4 CCH Consumer Credit Guide ¶99,356.

¹⁹ *Gardner and North Roofing and Siding Corp. v. Board of Governors*, supra note 18.

²⁰ *N. C. Freed Company, Inc. v. Board of Governors*, supra note 18.

²¹ *Garland v. Mobil Oil Corporation*, U.S.D.C., N.D. Ill., 4 CCH Consumer Credit Guide ¶99,558; *Mourning v. Family Publications Service, Inc.*, 5th Cir., 4 CCH Consumer Credit Guide ¶99,337.

²² U.S.D.C., S.D.N.Y., June 16, 1971, 4 CCH Consumer Credit Guide ¶99,456.

²³ See also *Buford v. American Finance Company*, supra note 15; *Douglas v. Beneficial Finance Co. of Anchorage*, U.S.D.C., D. Ak., Sept. 2, 1971, 4 CCH Consumer Credit Guide ¶99,295.

²⁴ Supra note 23.

²⁵ U.S.D.C., N.D. Ill., July 29, 1971, 4 CCH

Consumer Credit Guide ¶99,384. (See Board interpretation 12 C.F.R. 226.202).

²⁶ U.S.D.C., E.D. La., April 27, 1971, 4 CCH Consumer Credit Guide ¶99,375, 326 F. Supp. 871.

²⁷ 8th Cir., May 3, 1971, 4 CCH Consumer Credit Guide ¶99,502, cert. denied Oct. 12, 1971, 4 CCH Consumer Credit Guide ¶99,322. But see *Garza v. Chicago Health Clubs, Inc.*, supra note 25 where the Court assumed, without deciding, that it had jurisdiction to enjoin fraudulent credit advertising, including violations of the Truth in Lending Act and Regulation Z.

²⁸ U.S.D.C., N.D. Ohio, Nov. 24, 1970, 4 CCH Consumer Credit Guide ¶99,583. However, see *Douglas v. Beneficial Finance Co. of Anchorage*, supra note 23 where plaintiff was allowed to rescind her loan as well as collect damages.

²⁹ "No provision of this subchapter imposing any liability shall apply to any act done or omitted in good faith in conformity with any rule or regulation of the Commission, notwithstanding that such rule or regulation may, after such act or omission, be amended or rescinded or be determined by judicial or other authority to be invalid for any reason." 15 U.S.C. § 77s(a).

³⁰ Supra note 18.

³¹ Supra note 18.

³² Supra note 21.

³³ 15 U.S.C. § 1604.

³⁴ 12 C.F.R. § 226.2(k).

³⁵ 15 U.S.C. § 1662.

³⁶ 15 U.S.C. § 1664.

APPENDIX A—ADVISORY COMMITTEE ON TRUTH IN LENDING

Chairman: Dr. Richard H. Holton, Dean, School of Business Administration, University of California, Berkeley, California.

Mr. Harry D. Allen, Assistant Credit Sales Manager, Rich's Department Store, Atlanta, Georgia.

Mr. James M. Barry, Managing Director, Texas Credit Union League, Dallas, Texas.

Mr. Edwin B. Brooks, Jr., President, Security Federal Savings and Loan Association, Richmond, Virginia.

Mr. O. C. Carmichael, Jr., Chairman of the Board, Associates Corporation of North America, South Bend, Indiana.

Miss Barbara A. Curran, Senior Research Attorney, American Bar Foundation, Chicago, Illinois.

Dr. Louis F. Del Duca, Professor of Law and Director of Admissions, The Dickinson School of Law, Carlisle, Pennsylvania.

Mr. John E. Eidam, Attorney and Consultant to Cooperatives, Omaha, Nebraska.

Mr. William F. James, President, James Cadillac Company, Woodbridge, Connecticut.

Mr. Robert J. Klein, Economics Editor, Consumers Union, Mount Vernon, New York.

Mr. Robert R. Masterton, President, Maine Savings Bank, Portland, Maine.

Mr. William F. Melville, Jr., Senior Vice President, Maryland National Bank, Baltimore, Maryland.

Mrs. Faith Prior, Extension Family Economist, University of Vermont, Burlington, Vermont.

Mr. Robert W. Pullen, Chairman, Department of Economics, Colby College, Waterville, Maine.

Mrs. Doris E. Saunders, Staff Associate, Office of the Chancellor, University of Illinois, Chicago, Illinois.

Mr. Miles C. Stanley, President, West Virginia Labor Federation, AFL-CIO, Charleston, West Virginia.

Mrs. Lynnette Taylor, Executive Director, Delta Sigma Theta Sorority, Washington, D.C.

Mr. Peter R. Thompson, President, Mid-Continent Properties, Inc., Piqua, Ohio.

Mr. Harry R. Valas, Vice President, Valas Corporation, Denver, Colorado.

Miss Barbara A. Zimmelman, Consultant, Urban and Economic Development, Houston, Texas.

REESTABLISH NOVEMBER 11 AS VETERANS DAY

(Mr. PATMAN asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. PATMAN. Mr. Speaker, it has truly been said that while Congress can pass a law, only the people can make a holiday. We saw evidence of this last November 11 when millions of Americans observed Veterans Day even though the official date had been changed to the fourth Monday in October. November 11 has tremendous significance for Americans and for free people throughout the world as it was on the 11th day of the 11th month in 1918 that the armistice was signed ending the First World War. Every major veterans organization has come forward in support of reestablishing November 11 as our official Veterans Day, and to demonstrate my support for this objective, I have introduced H.R. 11888 to restore this important national observance to its traditional date.

Mr. Speaker, indicative of the widespread and deeply held support for restoring Veterans Day to November 11 is a resolution unanimously adopted by Barracks 2991 of the Veterans of World War I of the U.S.A., Mount Pleasant, Tex. This is an eloquent and persuasive statement that goes to the heart of the issue, and I believe it merits the attention of all Members. I hope my colleagues will join me in working to change the Monday holiday law. The day upon which we pay tribute to our men—more than 28 million veterans—should be one that over the last half century has been memorable and significant, and to some of us even sad and fraught with nostalgia. November 11 is a day marked with this Nation's history. It is neither dignified nor appropriate that Veterans Day should be relegated to the weary 24-hour wind-down of a 3-day weekend carnival. The resolution follows:

RESOLUTIONS

Whereas, the eleventh day of November, 1918 was the first day in history upon which the United States of America as a participant and ally achieved a clear-cut, unqualified and overwhelming triumph over a most formidably armed imperialism obviously designing world conquest and exploitation; and,

Whereas, by an unbroken record of observance over more than half-century, a way of American life has been indelibly established by our patriots who mark that day by ceremonial assembly and in reminiscent pause on the eleventh hour of that day; and,

Whereas, our victorious but weary allies placed great trust in Thomas Woodrow Wilson as the world's highest personage and as President of our Country, by concurring almost without question in his personally penned phrasing of that imperishable paper commonly referred to as the Fourteen Points, a document so awesomely significant but so fraught with a proper and stern concern for peoples of other nations, both small and great; and,

Whereas, the eleventh of November, as a date is, therefore, the common property of the Free World and is not a subject for our

independent, capricious or causeless cancellation in disregard of history and of the sentiments of our erstwhile allies and comrades-at-arms, but as a date, bears the special characteristic of a hard-won crown that is impossible to be transferred to another date; and,

Whereas, in 1926 the Congress of the United States of America designated the eleventh of November as Armistice Day, and in 1954 as Veterans Day, neither of which designations could conflict with any nation's calendar; but,

Whereas, in 1970 the Congress of the United States of America without a test beforehand of public acceptance and, moreover, under virtual cloak of concealment, enacted the surprise change of Veterans Day from November eleventh to the last Monday in each October; and,

Whereas, in comparison with the said presently legalized date which is barren of historical significance and is in overwhelming disfavor with the patriotically oriented citizenship of our Country, the November Eleventh date is dramatically rich in history and in significance to many millions throughout the world who still recount their personal experiences of the day that was decreed by our then greatest men for History's greatest hour, instead of by long-after legislation in Washington, D.C.; now, therefore,

Be it resolved by Barracks 2991, a unit of sixty-five members of Veterans of World War I, Inc. of U.S.A. in regular meeting assembled in Mount Pleasant, Texas, that in complete unanimity do we deplore the latter action of our Congress as hereinbefore shown, and do entreat and admonish our legislators to restore by law the eleventh day of November as the legal national holiday in the United States of America to be designated and henceforth observed as Veterans Day; and

Be it further resolved that we, the enrolled members of the said Barracks 2991, shall each as individuals urgently and aggressively endeavor by all means available to enlist the approval, support and action of all American patriots, whether war veterans or not, as we urge the Congress of the United States to purge itself of this great error by restoring the traditionally honored date of November Eleventh to its proper designation for observance as Veterans Day.

PRELIMINARY FIGURES REGARDING GROSS NATIONAL PRODUCT FIRM INDICATORS OF STRONG ECONOMIC GROWTH

(Mr. DEVINE asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. DEVINE. Mr. Speaker, preliminary figures regarding gross national product in the fourth quarter and during the full years of 1971 affirm earlier indicators that we are on the course to strong economic growth. This past Friday the Department of Commerce released figures showing that GNP increased at a real annual rate of 6 percent during the fourth quarter of 1971. Additionally, prices as measured by the overall GNP implicit price deflator increased only 1½ percent in the fourth quarter, down from the 2½-percent annual rise in the third quarter. Both of these statistics are heartening indications that the President's new economic program is working.

A large part of the growth in GNP gains during full year 1971 is attributable to two of our most vital industries, automobiles and residential construction. During 1971 gross auto product increased \$10 billion, or 33 percent, after falling 6

billion dollars in 1970. New car sales achieved a record 10.3 million units in 1971, almost 2 million units more than in 1970.

As for housing, starts set records both this past December and through all of 1971. The Department of Commerce estimated that housing starts totaled 2,048,000 units last year. During December, starts took place at a seasonally adjusted rate of approximately 2½ million, up 9 percent from November's pace of 2.3 million, which was the previous monthly high. Assistant Secretary of Commerce for Economic Affairs, Harold C. Passer said:

Housing starts closed out a boom year on a strong upbeat.

Mr. Passer said further that we may have "another outstanding year for housing in 1972" because of declining mortgage rates and the ready availability of mortgage funds. I think, Mr. Speaker, that there are also numerous indicators that 1972 will be an outstanding year not only for housing, but for all sectors of the economy.

THE WAR CONTINUES

(Mr. MADDEN asked and was given permission to extend his remarks at this point in the RECORD and to include extraneous matter.)

Mr. MADDEN. Mr. Speaker, 4 years ago next October, the Republican National Committee and their presidential and vice-presidential candidates were assuring the American voters that they had a plan to win the Indochina war or terminate it in a short time.

Last week Time magazine contained this sorrowful news article on the same war now going on in the jungles of Southeast Asia:

THERE IS STILL A WAR ON

With the next-to-final phase of the U.S. withdrawal from Viet Nam in sight at last, the war suddenly appeared to be not dwindling down but rapidly building up again. Last week, even as President Nixon was announcing the pullout of 70,000 more G.I.'s by May 1, the North Vietnamese were carrying out an ominous new offensive in each of Indochina's major battlegrounds.

In Laos, Communist troops scored a stunning victory by forcing the evacuation of Long Cheng, the celebrated CIA base near the Plain of Jars. They also scattered the battered remnants of the U.S.-backed army of Meo tribesmen that was, until recently, the only force that could keep the Communists in check in Laos.

In Cambodia, government troops continued to give ground to the North Vietnamese troops, who now control most of the northeastern countryside. At Krek, 2,500 Cambodian troops simply fled when the 10,000 South Vietnamese troops that had been operating with them in the former Communist "sanctuaries" were abruptly called home by Saigon. The Cambodians reportedly left so much equipment behind that U.S. aircraft were called upon to bomb it before it could be captured by the North Vietnamese.

In South Viet Nam, Saigon forces took up defensive positions, primarily astride infiltration routes and around major cities and military bases, to await a sizable flare-up in Communist activity that is expected to peak at the time of the Tet holidays, which fall in mid-February. Meanwhile the North Vietnamese moved mobile missile launchers

right up to South Viet Nam's northern frontiers, and the air war continued. The U.S. last week conducted its seventh "protective reaction" strike of the year against SAM sites in North Viet Nam.

Despite the poor results of the recent bombing, U.S. military officials insisted that the enemy was capable only of "cheap victories" in unimportant territory. Perhaps so, but the renewal of the ground war should dispel the notion, widespread in the U.S., that the fighting is over, at least for the American G.I. Technically, U.S. troops are indeed in a "defensive" posture, as the Administration calls it, because their main job is to protect American facilities. But for a good number of the 139,000 G.I.s still in Viet Nam, that job means endless patrols out in the boondocks under conditions that look very much like war.

In all probability, the last U.S. Army combat unit in Viet Nam will be the 7,000-man 3rd Brigade of the First Cavalry Division (Airmobile), which is responsible for the security of a vast area of Vietnamese countryside surrounding the huge American installations at Bien Hoa, Long Binh and the Tan Son Nhut airbase outside Saigon. Recently, TIME Correspondent Rudolph Rauch joined one 3rd Brigade company as it pushed off from a fire base 35 miles east of Saigon to begin a patrol in search of North Vietnamese infiltrators. His report:

Nobody in Charlie Company wanted to be where he was, and when we walked off Fire Base Hall and into the jungle, it was easy to sympathize. We marched as a company for an hour, then divided into three platoons. After two miles, the jungle gave way to incredibly thick undergrowth—not high enough to block out the sun and too dense to move through, either quickly or silently. Napalm strikes had killed all the tall trees whose shade once kept down the growth on the jungle floor.

Charlie Company was fresh from a weekend in the seaside resort of Vung Tau—a prized opportunity for revelry and relaxation that comes only once every 45 days. The company has no barracks, no dress uniforms (they are stored in boxes at Bien Hoa) and no personal possessions (letters are the only personal items allowed in the field). The Vung Tau weekend, which the men enjoy in fatigues, is the only break in an endless cycle of ten- to 15-day patrols and three-day rests on a fire base with no hot showers and few other amenities.

NO HAMMOCKS

We are supposed to patrol until 5 o'clock, when the rules say that the night defensive position should be set up. If a unit moves after 5, there is a danger that a contact might run on after darkness, making air support more difficult. But at 5 it is pouring rain, and we are still in scrub, which is not good for a night position because there are no trees big enough to stop enemy mortars. It is close to 6 when we find a few trees, and everybody starts putting up his hooch. I pull out my hammock. "No hammocks," says Sergeant Henry A. Johnson, a Virginian who has a master's degree in communications. "The C.O. doesn't allow them. Too vulnerable to mortars. The C.O. believes in being cautious."

"LINE ONE"

When we move out at dawn next morning, everyone is a bit more nimble, perhaps because the Vung Tau hangovers are gone. We walk all morning, stopping for a ten-minute break each hour. At the noon break, the radio sputters with orders from the battalion commander to a unit that has made contact with the enemy five miles away. There was an ambush; one American was killed when he walked into an NVA bunker complex. An-

other is wounded and a helicopter is down. The battalion commander, flying overhead in his helicopter, says he is going in to pick up the downed pilot. His chopper is loaded with electronic gear and it is too heavy for any task that requires acrobatics. "Jesus, Colonel, be careful," whispers the radio operator, Pfc. Erik Lewis, 21. The rescue is successful.

Lewis tells me that a "Line One" (meaning a G.I. combat death in army jargon) "happens just rare enough so that nobody at home knows about it. But if you're out here, your peace outlook goes straight to zero." And, he adds, "I'm going to kill as many of those mothers as I can."

Charlie Company's commander, Captain Thomas D. Smith, was a young lawyer about to open an office in Omaha when he was drafted in 1966. Since then Smith, who is about to turn 30, has seen a number of "Line Ones." In the first two weeks of the new year, the 3rd Brigade suffered two killed and 34 wounded in skirmishes with its chief opponent, the 33rd NVA regiment, which prowls the jungles east of Saigon. The only way to stay alive in the jungle, Smith believes, is to keep moving. "You stop pushing and they'll walk all over you," he says.

At 10 a.m. on the third day, we are crouched over a small stream refilling canteens when the radio crackles: we are going to be dropped by copter into the area where the G.I.s had been ambushed yesterday. We move to the nearest landing zone—and wait. Finally, at 1 p.m. the helicopters show up to ferry us in a flotilla of six-man groups to the assault landing zone. I ride in the third chopper (the fourth or fifth is thought to be the most desirable) with Sergeant Henry R. Campbell of Newington, Conn., who won a Bronze Star in a firefight last October. Campbell is modest about his star ("Hell, all I did was put out all the firepower I could"), but he is also wryly amused by the Stateside impression of the nature of the war. "My mother can't believe I'm in danger," he says as he sits in the door of the chopper with a machine gun across his knees. "She says the President says it's all defensive now, so how could it be dangerous?"

We land in elephant grass in a clearing. The only thing to be heard besides the rotor blades is the feeble stutter of the door gunner's machine gun. The landing zone is "cold"—meaning that there are no enemy about—but the troops find fresh tracks almost immediately. We follow the trail until shortly after 5, when another night position is set up. The forward artillery observer calls in artillery strikes on an area that he thinks the enemy might have moved into. He orders the strikes for 10 p.m.—like booking a telephone call—and waits up for them. Everyone else sleeps.

TOO MUCH RAIN

At dawn we set off again. When we finally reach the ambush site, we find only some rice left behind by the NVA, a pair of bloody trousers, a B-40 North Vietnamese rocket case and a document nobody can read.

It is four days since we walked off Fire Base Hall. There has been no contact but several scares, a lot of heat, a surfeit of leeches, too much rain for the dry season, and a wearying round of days that begin at 7 and end at twelve hours later, when the light falls. Charlie Company is one-third of the way through its patrol. Ten more days exactly like the four before, and Charlie will be taken back to a fire base, to stand in reserve in case another unit needs assistance. Three days on the base, and ten more in the field. When I get a helicopter to leave, I am handed letters to mail from more than half of the company. "If we're not here," asks Sergeant James Wiggins, "how come they're getting these?"

TAKE PRIDE IN AMERICA

(Mr. MILLER of Ohio asked and was given permission to extend his remarks at this point in the Record and to include extraneous matter.)

Mr. MILLER of Ohio. Mr. Speaker, today we should take note of America's great accomplishments and in so doing renew our faith and confidence in ourselves as individuals and as a nation.

The first successful system of processing aluminum was devised by Charles M. Hall of the United States in 1889.

LEAVE OF ABSENCE

By unanimous consent, leave of absence was granted to:

Mrs. GREEN of Oregon (at the request of Mr. VANIK), for January 24 through January 28, on account of illness.

Mr. ESHLEMAN (at the request of Mr. GERALD R. FORD), for today and the balance of the week, on account of illness.

Mr. CORMAN, for the week of January 24, on account of official business.

SPECIAL ORDERS GRANTED

By unanimous consent, permission to address the House, following the legislative program and any special orders heretofore entered, was granted to:

Mr. MAHON, for 30 minutes, today, and to revise and extend his remarks, following the budget message of the President.

Mr. VANIK, for 10 minutes, today; to revise and extend his remarks and to include extraneous matter.

(The following Members (at the request of Mr. WHITEHURST) and to revise and extend their remarks and include extraneous matter:)

Mr. Bow, for 30 minutes, today.

Mr. CHAMBERLAIN, for 5 minutes, today.

(The following Members (at the request of Mr. MCKAY) to revise and extend their remarks and include extraneous matter:)

Mr. GONZALEZ, for 10 minutes, today.

Mr. WILLIAM D. FORD, for 5 minutes, today.

Mr. PEPPER, for 10 minutes, today.

Mr. DANIELSON, for 10 minutes, today.

Mr. JAMES V. STANTON, for 15 minutes, today.

EXTENSION OF REMARKS

By unanimous consent, permission to revise and extend remarks was granted to:

Mr. MAHON, to revise and extend his remarks and include extraneous matter and tables.

Mr. ALBERT (at the request of Mr. MAHON) and to include extraneous matter.

Mr. COLMER and to include extraneous matter.

Mr. PICKLE (at the request of Mr. COLMER) following Mr. COLMER's remarks on House Resolution 773.

Mr. MADDEN and to include a newspaper article.

(The following Members (at the request of Mr. WHITEHURST (and to include extraneous matter:))

Mr. CONTE.
Mr. COUGHLIN in four instances.
Mr. BLACKBURN.
Mr. GUDE in five instances.
Mr. PEYSER in 10 instances.
Mr. STEIGER of Wisconsin.
Mr. SCHMITZ in three instances.
Mr. SCHERLE in 12 instances.
Mr. TEAGUE of California.
Mr. WYMAN in two instances.
Mr. GERALD R. FORD.
Mr. DEL CLAWSON.
Mr. SEBELIUS.
Mr. ERLÉNBOERN in two instances.
Mr. ZWACH.
Mr. HUNT.
Mr. SCHWENGEL in two instances.

(The following Members (at the request of Mr. MCKAY) and to include extraneous matter:))

Mr. VANIK in three instances.
Mr. REES.
Mr. ANNUNZIO.
Mr. RODINO in two instances.
Mr. NATCHER.
Mr. GONZALEZ in two instances.
Mr. RARICK in five instances.
Mr. HAGAN.
Mr. BEGICH in three instances.
Mr. DAVIS of Georgia in five instances.
Mr. CARNEY in two instances.
Mr. FASCELL.
Mr. ROGERS in five instances.
Mr. MILLER of California in five instances.

Mr. DOW.
Mr. BURKE of Massachusetts.
Mr. PODELL.
Mr. HUNGATE.
Mr. BROOKS.
Mr. SCHEUER in two instances.
Mr. ICHORD.
Mr. JACOBS in two instances.
Mr. DANIEL of Virginia.
Mr. HANNA in six instances.
Mr. ROY.

ADJOURNMENT

Mr. MCKAY. Mr. Speaker, I move that the House do now adjourn.

The motion was agreed to; accordingly (at 1 o'clock and 36 minutes p.m.), the House adjourned until tomorrow, Tuesday, January 25, 1972, at 12 o'clock noon.

EXECUTIVE COMMUNICATIONS, ETC.

Under clause 2 of rule XXIV, executive communications were taken from the Speaker's table and referred as follows:

1468. A letter from the Assistant Secretary of Agriculture, transmitting the fourth annual report on operations under the Food Stamp Act of 1964, pursuant to Public Law 90-552; to the Committee on Agriculture.

1469. A letter from the Deputy Assistant Secretary of Defense (Installations and Housing), transmitting notice of the location, nature, and estimated cost of certain facilities projects proposed to be undertaken for the Air National Guard and the Air Force Reserve, pursuant to 10 U.S.C. 2233a(1); to the Committee on Armed Services.

1470. A letter from the Assistant Secretary of Commerce for Administration, transmitting a report of foreign excess property dis-

posed of by the Department of Commerce during calendar year 1971, pursuant to section 404(d) of Public Law 152 (81st Congress); to the Committee on Government Operations.

1471. A letter from the Deputy Administrator of Veterans' Affairs, transmitting a report of foreign excess property disposed of by the Veterans' Administration during calendar year 1971, pursuant to 40 U.S.C. 514(d); to the Committee on Government Operations.

1472. A letter from the Secretary of the Interior, transmitting the seventh annual report of the Office of Water Resources Research, pursuant to the Water Resources Research Act of 1964, as amended; to the Committee on Interior and Insular Affairs.

1473. A letter from the Secretary of Transportation, transmitting the second annual report of the Federal Aviation Administration's operations under the Airport and Airway Development Act of 1970, covering fiscal year 1971, pursuant to section 24 of the act; to the Committee on Interstate and Foreign Commerce.

1474. A letter from the Chairman, Federal Trade Commission, transmitting a report concerning the effectiveness of cigarette labeling, current practices and methods of cigarette advertising and promotion, and recommendations for legislation deemed appropriate, pursuant to section 8(b) of the Public Health Cigarette Smoking Act; to the Committee on Interstate and Foreign Commerce.

1475. A letter from the secretary-treasurer, Congressional Medal of Honor Society of the United States of America, transmitting the annual financial report of the society for calendar year 1971, pursuant to Public Law 88-504; to the Committee on the Judiciary.

RECEIVED FROM THE COMPTROLLER GENERAL

1476. A letter from the Comptroller General of the United States, transmitting a report of the examination of the financial statements of the Veterans' Canteen Service, Veterans' Administration, for fiscal year 1971, pursuant to 38 U.S.C. 4207; to the Committee on Government Operations.

1477. A letter from the Comptroller General of the United States, transmitting a report of the examination of the financial statements of the Disabled American Veterans' national headquarters and the service foundation for the year ended December 31, 1970, and the life membership fund for the year ended June 30, 1971, pursuant to 36 U.S.C. 901; to the Committee on Veterans' Affairs.

REPORTS OF COMMITTEES ON PUBLIC BILLS AND RESOLUTIONS

Under clause 2 of rule XIII, reports of committees were delivered to the Clerk for printing and reference to the proper calendar, as follows:

Mr. PATMAN: Committee on Banking and Currency. S. 748. An act to authorize payment and appropriation of the second and third installments of the U.S. contributions to the Fund for Special Operations of the Inter-American Development Bank; with amendments (Rept. No. 92-770). Referred to the Committee of the Whole House on the State of the Union.

Mr. PATMAN: Committee on Banking and Currency. S. 749. An act to authorize U.S. contributions to the Special Funds of the Asian Development Bank; with amendments (Rept. No. 92-771). Referred to the Committee of the Whole House on the State of the Union.

Mr. PATMAN: Committee on Banking and Currency. S. 2010. An act to provide for increased participation by the United States in the International Development Association; with amendments (Rept. No. 92-772).

Referred to the Committee of the Whole House on the State of the Union.

PUBLIC BILLS AND RESOLUTIONS

Under clause 4 of rule XXII, public bills and resolutions were introduced and severally referred as follows:

By Mr. ABBITT (for himself and Mr. DANIEL of Virginia):

H.R. 12541. A bill to amend the Communications Act of 1934 to establish orderly procedures for the consideration of applications for renewal of broadcast licenses; to the Committee on Interstate and Foreign Commerce.

By Mrs. ABZUG:

H.R. 12542. A bill to amend title XIX of the Social Security Act to prohibit the imposition of any deduction, cost sharing, co-insurance, enrollment fee, premium, or similar charge with respect to individuals receiving services under a State plan for medical assistance; to the Committee on Ways and Means.

By Mr. BROYHILL of Virginia:

H.R. 12543. A bill to reorganize the government of the District of Columbia by the establishment of a Board of Governors to replace the Commissioner of the District of Columbia and the District of Columbia Council, and for other purposes; to the Committee on the District of Columbia.

H.R. 12544. A bill to authorize voluntary withholding of Maryland, Virginia, and District income taxes in the case of certain legislative officers and employees; to the Committee on Ways and Means.

By Mr. CARTER:

H.R. 12545. A bill to amend the Federal Trade Commission Act (15 U.S.C. 41) to provide that under certain circumstances exclusive territorial arrangements shall not be deemed unlawful; to the Committee on Interstate and Foreign Commerce.

By Mr. CURLIN:

H.R. 12546. A bill to amend the Uniform Time Act of 1966 to provide that daylight saving time shall begin on Memorial Day and end on Labor Day of each year; to the Committee on Interstate and Foreign Commerce.

By Mr. WILLIAM D. FORD (for himself and Mr. PEYSER):

H.R. 12547. A bill to expand the membership of the Advisory Commission on Intergovernmental Relations to include elected school board officials; to the Committee on Government Operations.

By Mr. GOLDWATER:

H.R. 12548. A bill to provide consumer protection in interstate real estate activities and to promulgate the highest of professional standards in the interstate real estate industry, and for other purposes; to the Committee on Interstate and Foreign Commerce.

By Mr. HALPERN (for himself, Mr. HATHAWAY, and Mr. SYMINGTON):

H.R. 12549. A bill to provide financial assistance for State and local small, community-based correctional facilities; for the creation of innovative programs of vocational training, job placement, and on-the-job counseling; to develop specialized curriculums, the training of educational personnel and the funding of research and demonstration projects; to provide financial assistance to encourage the States to adopt special probation services; to establish a Federal Corrections Institute; and for other purposes; to the Committee on the Judiciary.

By Mr. VANDER JAGT:

H.R. 12550. A bill to amend the act of August 13, 1946, relating to Federal participation in the cost of protecting the shores of the United States, its territories, and possessions, to include privately owned property; to the Committee on Public Works.

By Mr. JONES of Alabama (for himself, Mrs. MINK, Mr. BENNETT, Mr. EVINS of Tennessee, Mr. ROSENTHAL, Mr.

COLMER, Mr. PREYER of North Carolina, Mr. WAGGONER, Mr. FASCELL, Mr. STEED, Mr. HALPERN, and Mr. LEGGETT):

H.R. 12551. A bill to change the name of the Columbia lock and dam, on the Chattahoochee River, Ala., to the George W. Andrews lock and dam; to the Committee on Public Works.

By Mr. KEE:

H.R. 12552. A bill to amend the Communications Act of 1934 to establish orderly procedures for the consideration of applications for renewal of broadcast licenses; to the Committee on Interstate and Foreign Commerce.

By Mr. MACDONALD of Massachusetts:

H.R. 12553. A bill to strengthen and improve the Older Americans Act of 1965; to the Committee on Education and Labor.

By Mr. MAZZOLI:

H.R. 12554. A bill to provide for the control of sickle cell anemia; to the Committee on Interstate and Foreign Commerce.

By Mr. MCCLORY:

H.R. 12555. A bill to establish a program for the United States to convert to the metric system; to the Committee on Science and Astronautics.

By Mr. McFALL:

H.R. 12556. A bill to amend title 5, United States Code, to require the heads of the respective executive agencies to provide the Congress with advance notice of certain planned organizational and other changes or actions which would affect Federal civilian employment, and for other purposes; to the Committee on Post Office and Civil Service.

By Mr. MORGAN:

H.R. 12557. A bill to amend the Communications Act of 1934 to establish orderly procedures for the consideration of applications for renewal of broadcast licenses; to the Committee on Interstate and Foreign Commerce.

H.R. 12558. A bill to amend the act of August 10, 1961, to authorize further editions to Fort Necessity National Battlefield, Pennsylvania, and for other purposes; to the Committee on Interior and Insular Affairs.

By Mr. PEPPER (for himself, Mr. ABBITT, Mrs. ABZUG, Mr. ALEXANDER, Mr. ANDERSON of Tennessee, Mr. ASPIN, Mr. BEVILL, Mr. BIAGGI, Mr. BRASCO, Mr. BROWN of Michigan, Mr. BROYHILL of North Carolina, Mr. BUCHANAN, Mr. BURKE of Massachusetts, Mr. BYRNE of Pennsylvania, Mr. BYRON, Mrs. CHISHOLM, Mr. DON H. CLAUSEN, Mr. DEL CLAWSON, Mr. CLAY, Mr. CLEVELAND, Mr. COLLINS of Texas, Mr. CONYERS, Mr. CORDOVA, Mr. COTTER, and Mr. DANIELS of New Jersey):

H.R. 12559. A bill to promote research and development of drugs or chemical compounds for use in the cure, prevention, or treatment of heroin addiction; to the Committee on Interstate and Foreign Commerce.

By Mr. PEPPER (for himself, Mr. DIGGS, Mr. DOW, Mr. DOWDY, Mr. DULSKI, Mr. DU PONT, Mrs. DWYER, Mr. ESHLEMAN, Mr. FORSYTHE, Mr. FRASER, Mr. GARMATZ, Mrs. GRASSO, Mr. GRAY, Mr. HALEY, Mr. HALL, Mr. HALPERN, Mr. HANLEY, Mr. HANNA, Mr. HARRINGTON, Mr. HAWKINS, Mr. HECHLER of West Virginia, Mrs. HICKS of Massachusetts, Mr. HILLIS, Mr. HORTON, and Mr. HOWARD):

H.R. 12560. A bill to promote research and development of drugs or chemical compounds for use in the cure, prevention, or treatment of heroin addiction; to the Committee on Interstate and Foreign Commerce.

By Mr. PEPPER (for himself, Mr. KEATING, Mr. KEE, Mr. McDADE, Mr. McKINNEY, Mr. MANN, Mr. MEEDS, Mr. MITCHELL, Mr. MOORHEAD, Mr. MORSE, Mr. MURPHY of Illinois, Mr. RANGEL,

Mr. REES, Mr. ROBINSON of Virginia, Mr. ROONEY of Pennsylvania, Mr. ROY, Mr. RUPPE, Mr. SANDMAN, Mr. SARBANES, Mr. SCHERLE, Mr. SCHEUER, Mr. SIKES, Mr. SMITH of Iowa, Mr. STEIGER of Arizona, and Mrs. SULLIVAN):

H.R. 12561. A bill to promote research and development of drugs or chemical compounds for use in the cure, prevention, or treatment of heroin addiction; to the Committee on Interstate and Foreign Commerce.

By Mr. PEPPER (for himself, Mr. THOMPSON of New Jersey, Mr. TIERNAN, Mr. VANIK, Mr. VEYSEY, Mr. WALDIE, Mr. WIGGINS, Mr. WILLIAMS, Mr. CHARLES H. WILSON, Mr. BROYHILL of Virginia, and Mr. WINN):

H.R. 12562. A bill to promote research and development of drugs or chemical compounds for use in the cure, prevention, or treatment of heroin addiction; to the Committee on Interstate and Foreign Commerce.

By Mr. ROGERS (for himself, Mr. SATTERFIELD, Mr. KYROS, Mr. PREYER of North Carolina, Mr. SYMINGTON, Mr. ROY, Mr. NELSEN, Mr. CARTER, and Mr. HASTINGS):

H.R. 12563. A bill to amend the Public Health Service Act to authorize the establishment of medical emergency transportation and service programs; to the Committee on Interstate and Foreign Commerce.

By Mr. RONCALIO:

H.R. 12564. A bill to amend the Communications Act of 1934 to establish orderly procedures for the consideration of applications for renewal of broadcast licenses; to the Committee on Interstate and Foreign Commerce.

H.R. 12565. A bill to amend the Federal Trade Commission Act (15 U.S.C. 41) to provide that under certain circumstances exclusive territorial arrangements shall not be deemed unlawful; to the Committee on Interstate and Foreign Commerce.

By Mr. RYAN (for himself, Mr. BRASCO, Mr. CAREY of New York, Mr. DOW, Mr. HECHLER of West Virginia, Mr. MAZZOLI, Mr. MORSE, Mr. PIKE, Mr. PRICE of Illinois, and Mr. REID):

H.R. 12566. A bill to amend the Lead-Based Paint Poisoning Prevention Act; to the Committee on Banking and Currency.

By Mr. SIKES:

H.R. 12567. A bill to amend the Communications Act of 1934 to establish orderly procedures for the consideration of applications for renewal of broadcast licenses; to the Committee on Interstate and Foreign Commerce.

By Mr. SLACK:

H.R. 12568. A bill to amend the Federal Trade Commission Act (15 U.S.C. 41) to provide that under certain circumstances exclusive territorial arrangements shall not be deemed unlawful; to the Committee on Interstate and Foreign Commerce.

H.R. 12569. A bill to amend the Cargo Preference Act of 1954 for certain purposes; to the Committee on Merchant Marine and Fisheries.

By Mr. SPENCE:

H.R. 12570. A bill to amend the Federal Trade Commission Act (15 U.S.C. 41) to provide that under certain circumstances exclusive territorial arrangements shall not be deemed unlawful; to the Committee on Interstate and Foreign Commerce.

By Mr. STAGGERS:

H.R. 12571. A bill to amend the Public Health Service Act so as to strengthen the National Heart and Lung Institute, the National Institute of Neurological Diseases and Stroke, and the National Institutes of Health, in order more effectively to carry out the national effort against heart, lung, and neurological diseases and stroke; to the Committee on Interstate and Foreign Commerce.

By Mr. STEED:

H.R. 12572. A bill to amend the Federal Trade Commission Act (15 U.S.C. 41) to provide that under certain circumstances exclusive territorial arrangements shall not be deemed unlawful; to the Committee on Interstate and Foreign Commerce.

By Mr. TALCOTT:

H.R. 12573. A bill to establish a universal food service and nutrition education program for children; to the Committee on Education and Labor.

H.R. 12574. A bill to amend the Federal Trade Commission Act (15 U.S.C. 41) to provide that under certain circumstances exclusive territorial arrangements shall not be deemed unlawful; to the Committee on Interstate and Foreign Commerce.

By Mr. TAYLOR:

H.R. 12575. A bill to amend the Occupational Safety and Health Act of 1970 to exempt any nonmanufacturing business, or any business having 25 or less employees, in States having laws regulating safety in such businesses, from the Federal standards created under such act; to the Committee on Education and Labor.

H.R. 12576. A bill to amend the Occupational Safety and Health Act of 1970 to require the Secretary of Labor to recognize the difference in hazards to employees between the heavy construction industry and the light residential construction industry; to the Committee on Education and Labor.

H.R. 12577. A bill to amend section 5(f) of the Land and Water Conservation Fund Act of 1965; to the Committee on Interior and Insular Affairs.

By Mr. VANIK:

H.R. 12578. A bill to amend the National School Lunch Act to increase the authorization for programs for children in service institutions; to the Committee on Education and Labor.

By Mr. WAGGONER:

H.R. 12579. A bill to amend the Federal Trade Commission Act (15 U.S.C. 41) to provide that under certain circumstances exclusive territorial arrangements shall not be deemed unlawful; to the Committee on Interstate and Foreign Commerce.

By Mr. YATRON:

H.R. 12580. A bill to amend the Federal Trade Commission Act to provide that under certain circumstances exclusive territorial arrangements shall not be deemed unlawful; to the Committee on Interstate and Foreign Commerce.

H.R. 12581. A bill to amend the Communications Act of 1934 to establish orderly procedures for the consideration of applications for renewal of broadcast licenses; to the Committee on Interstate and Foreign Commerce.

By Mr. ZWACH:

H.R. 12582. A bill to amend section 1682 of title 38 of the United States Code to require that more emphasis be given to supervised work experience in the farm cooperative training program; to increase the educational assistance allowance rates for such program; and for other purposes; to the Committee on Veterans' Affairs.

H.R. 12583. A bill to amend the Internal Revenue Code of 1954 to relieve employers of 50 or less employees from the requirement of paying or depositing certain employment taxes more often than once each quarter; to the Committee on Ways and Means.

By Mr. MATSUNAGA:

H.J. Res. 1023. Joint resolution to provide a procedure for settlement of the dispute on the Pacific coast and Hawaii among certain steamship companies and associated employers and certain employees; to the Committee on Education and Labor.

By Mr. GROSS:

H. Con. Res. 504. Concurrent resolution expressing the sense of Congress respecting Federal expenditures; to the Committee on Government Operations.

MEMORIALS

Under clause 4 of rule XXII, memorials were presented and referred as follows:

299. By the SPEAKER: Memorial of the Legislature of the State of New Jersey, relative to aircraft noise abatement; to the Committee on Interstate and Foreign Commerce.

300. Also, memorial of the Legislature of the State of New Jersey, relative to inspection and enforcement of hygienic standards in the preparation and processing of food products; to the Committee on Interstate and Foreign Commerce.

PRIVATE BILLS AND RESOLUTIONS

Under clause 1 of rule XXII, private bills and resolutions were introduced and severally referred as follows:

By Mr. FISHER:

H.R. 12584. A bill for the relief of Charles R. Wood, major, U.S. Air Force (retired); to the Committee on the Judiciary.

By Mr. HEBERT:

H.R. 12585. A bill for the relief of Lt. Col. Paul S. Parrino, M.D., U.S. Army (retired); to the Committee on the Judiciary.

By Mr. RONCALIO:

H.R. 12586. A bill for the relief of David J.

Crumb; to the Committee on the Judiciary.

By Mr. WALDIE:

H.R. 12587. A bill for the relief of Joseph A. White & Associates; to the Committee on the Judiciary.

PETITIONS, ETC.

Under clause 1 of rule XXII,

181. The SPEAKER presented a petition of the City Council, Lake Forest Park, Wash., relative to Federal-State revenue sharing, which was referred to the Committee on Ways and Means.

SENATE—Monday, January 24, 1972

The Senate met at 10:45 a.m. and was called to order by the President pro tempore (Mr. ELLENDER).

PRAYER

The Chaplain, the Reverend Edward L. R. Elson, D.D., offered the following prayer:

O Lord, our God, Ruler of men and nations, we bow in this quiet moment at the beginning of a new week to dedicate our hearts and minds to Thee. Deliver us from all that is petty and small and open our hearts to all that is good and true, that Thy kingdom may be advanced through us. Impart to us a wisdom and grace beyond all that is human.

Bless this Nation, O Lord, and make it a blessing. Bless our leaders that they may lead in ways of righteousness and truth. Subdue the forces which obstruct the way of peace. Release the power of redemptive love and universal good will which leads to the day of peace and the coming of Thy kingdom—for Thine is the kingdom and the power and the glory forever and ever. Amen.

THE JOURNAL

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that the reading of the Journal of the proceedings of Friday, January 21, 1972, be dispensed with.

The PRESIDENT pro tempore. Without objection, it is so ordered.

ATTENDANCE OF SENATORS

Hon. GORDON ALLOTT, a Senator from the State of Colorado, Hon. ALAN BIBLE, a Senator from the State of Nevada, Hon. NORRIS COTTON, a Senator from the State of New Hampshire, Hon. ALAN CRANSTON, a Senator from the State of California, Hon. MIKE GRAVEL, a Senator from the State of Alaska, Hon. FRED R. HARRIS, a Senator from the State of Oklahoma, Hon. DANIEL K. INOUE, a Senator from the State of Hawaii, Hon. HENRY M. JACKSON, a Senator from the State of Washington, Hon. GEORGE MCGOVERN, a Senator from the State of South Dakota, Hon. CLAIBORNE PELL, a Senator from the State of Rhode Island, Hon. TED STEVENS, a Senator from the State of Alaska, Hon. JOHN V. TUNNEY, a Senator from the State of California, and Hon. LOWELL P. WEICKER, Jr., a Senator from the State of Connecticut, attended the session of the Senate today.

WAIVER OF THE CALL OF THE CALENDAR UNDER RULES VII AND VIII

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that the call of the calendar under rules VII and VIII be waived.

The PRESIDENT pro tempore. Without objection, it is so ordered.

COMMITTEE MEETINGS DURING SENATE SESSION

Mr. BYRD of West Virginia. I ask unanimous consent that all committees be authorized to meet during the session of the Senate today.

The PRESIDENT pro tempore. Without objection, it is so ordered.

ORDER OF BUSINESS

The PRESIDENT pro tempore. The Senator from Pennsylvania is recognized.

Mr. SCOTT. Mr. President, I yield back my time.

The PRESIDENT pro tempore. Under the previous order, the Senator from Pennsylvania (Mr. SCHWEIKER) is recognized for not to exceed 15 minutes.

IN PRAISE OF SENATOR HUGH SCOTT

Mr. SCHWEIKER. Mr. President, for many years I have had a close friend and associate in the Republican Party of Pennsylvania, my distinguished senior colleague, Senator HUGH SCOTT. He has served the great Commonwealth of Pennsylvania with distinction, which was recognized by our constituents, who last year sent him back to the Senate for a third term. This is one of the longest Senate tenures in Pennsylvania history.

However, I rise today not as his colleague from Pennsylvania, but as a Member of the Senate to pay tribute to Senator Scott for his outstanding achievements as Senate Republican leader. I rise to join my Republican colleagues to express our appreciation for the wise and considerate role he has assumed in this difficult leadership position.

All of us know how delicate the responsibilities of a Senate leader are. Such a man must balance the interests of the Senate in moving forward with responsible programs, the interests of his party in fulfilling its philosophies and commitments, and the interests of all Senators in serving the needs and wishes of their

respective constituencies. This challenging balancing act is almost impossible to achieve, and more often than not, provides nearly incompatible demands on the leader. To fulfill this challenge with responsibility and dignity requires a leader of rare skill and perseverance. We on the minority side and the entire Senate are indeed fortunate to have such a man in Senator Scott.

Since he first came to Congress in 1943, the Republican leader has been fiercely dedicated to the service of his party, his State, and his Nation. He has earned his reputation, in Pennsylvania and Washington, for serving all three entities with distinction.

Thus, he was uniquely qualified to assume the mantle of leadership left by the death of our late, great Republican leader, Everett M. Dirksen. His skill, patience, and understanding of the great traditions of the Senate and of the wishes and desires of his colleagues were further recognized when, a year ago, we re-elected him as our Republican leader. I am confident he will serve many years with distinction in this leadership position.

As Republican leader, Senator Scott has promoted the policies and philosophies of the Republican Party by encouraging widespread and open debate on the difficult issues of our day. Our party is truly a national party, representing the many divergent views of specific proposals that exist in the Nation as a whole. Diversity of opinion and openness of debate are healthy and constructive, and add depth and strength to our party. In the debates on the Senate floor, in the party caucuses, and in our private discussions, Senator Scott has encouraged, and demanded, the fullest of debate. At the same time, he has worked endlessly, and tirelessly, to insure that no personal rancor or animosities within the minority appear which could detract from the goal of moving our party and our Nation forward through full and open debate.

In addition to these difficult tasks, the Republican leader has also served with skill and distinction in representing the Republican administration in Congress. President Nixon has sent over many constructive bills, proposals, and programs, and Senator Scott has been an able advocate, within both Republican and Democratic ranks, for the President's legislative ideas.

I have had the privilege of working closely with Senator Scott on many is-